Research on the Migrant Personnel Flow's Influence on the Urban Planning: in the Case Study of Beijing and Xinyang City

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1. The Phenomenon of Migrant and Returning Home at the Stage of Rapid Urbanization in China

China is at the stage of rapid urbanization. Large number of people from the rural area in the West is moving to relatively developed urban region in the East, especially to metropolitans such as Beijing and Shanghai. In the year 1975, China surpassed the US and became the country with the largest number of urban population; this situation is predicted to persist for a long time. Joseph E. Stiglitz, a Nobel laureate in Economics, claims China's urbanization, together with the Third Industrial Revolution, are the two events that shaped human development in the most profound manner in the past century.
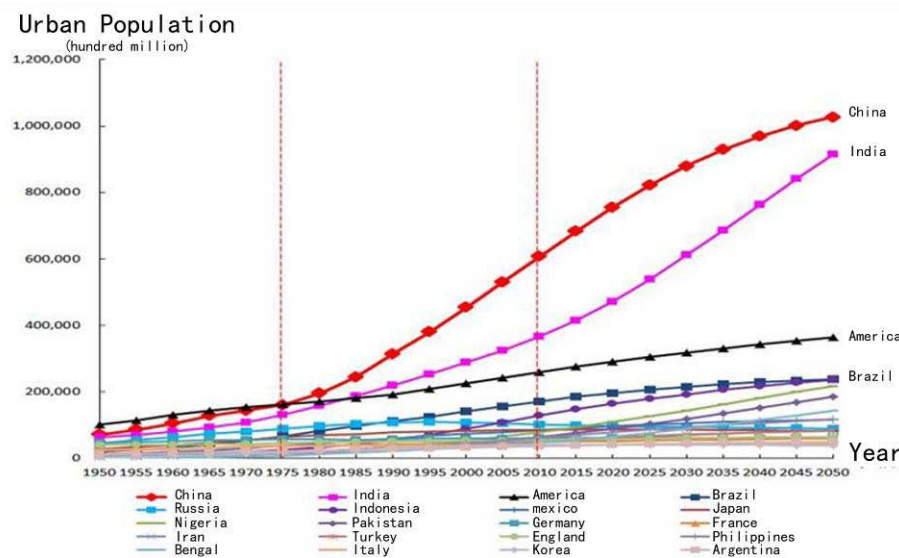

Figure 1: Top 20 Countries with the Largest Number of Urban Population: Population Changes by Year
Source: United Nations, 2010, World Urbanization Prospects: The 2009 Revision

The 2008 Global Financial Crisis led to the unemployment of 20 million migrant workers as well as pushed the structure change of urban economy. Traditional industries in the coastal region is moving to a saturated states, therefore economy of these cities requires structure changes. At the same time, the Middle and the West faces new opportunities because of the growing domestic market. With economic opportunities dispersing from the East to the Middle and the West, migration workers are moving back to where they are from. This trend brings significant influences to both their hometowns and their destinations. It is crucial for the destination cities to have sufficient housing, medical and education services to prevent social segregation and other social problems. The home cities also need to develop their infrastructure to cater for the returning migrant workers.

2. Brief Introduction of the Migrant Population of Beijing and Xinyang

Beijing is one of the biggest gathering place for migrant workers in China. By the end of 2012, Beijing's resident population is 20.69 million, of which the foreign resident population is 7.74 million, more than one-third of the resident population. Furthurmore, in the foreign resident population, the migrant workers account for 84.4%. In recent years, Beijing's foreign population growth has become a major factor in the resident population growth. During the period of 2001-2012, the foreign resident population in Beijing has increased 5.11 million, an average annual increase of 465000 people, with an annual growth rate of 10.39 percent, far higher than the average annual growth rate of 3.72 percent of the resident population during 2001-2012. The proportion of Foreign population in the resident population has increased from 19.0% in 2001 to 37.4% in 2012, which meas that in 2001 one out of five resident population is foreign population, while in 2012 to become one in three.
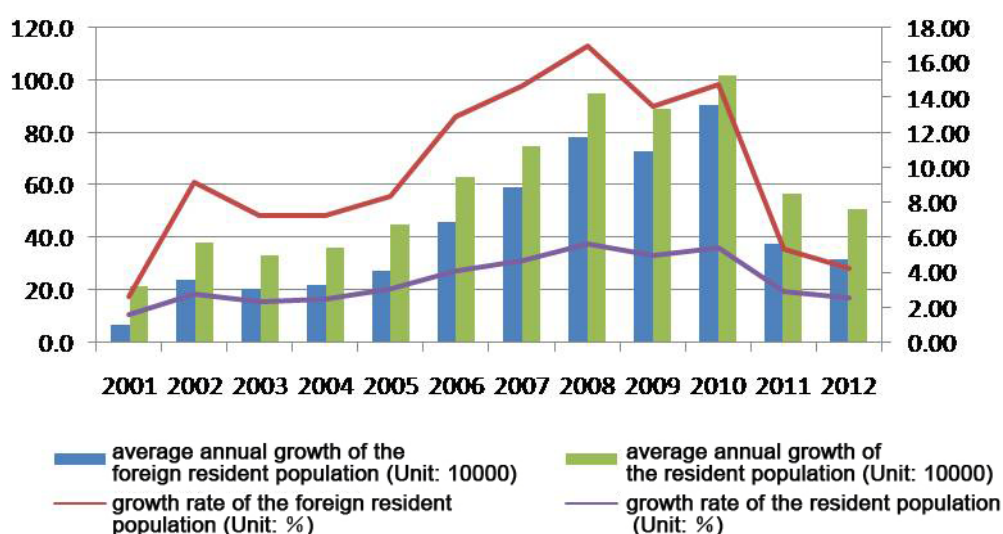

Figure 2: The Trends of the Foreign Resident Population and the Resident Population In Beijing

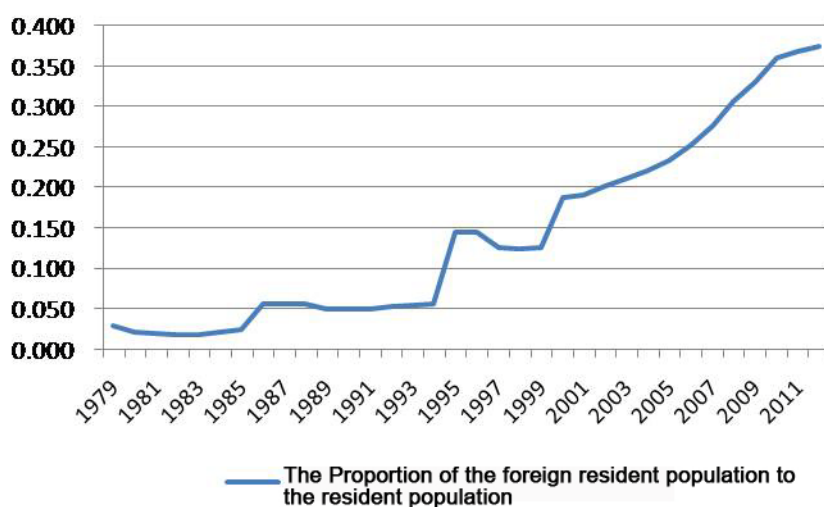*Source: the Project of Capital Regional Spatial Development Strategy*

Figure 3: The Proportion of the Foreign Resident Population to the Resident Population In Beijing

Source: the Project of Capital Regional Spatial Development Strategy

Henan Province is a large labor-exporting province in China, and Xinyang is a large labor-exporting city in Henan. In fact, labor economy has become a prominent feature of Xinyang. From the year of 1990, the outflow population in Xinyang has gradually increased, especially after 2000, the outflow population growing from 1,170,000 in 2000 to 2,400,000 in 2010. The migrant workers from Xinyang mainly flow to the eastern developed regions, especially megacities such as Beijing and Shanghai. For Beijing, Hebei and Henan are the largest source of migrant population, and the migrant population from the city of Zhangjiakou and Xinyang respectively ranks first in these two provinces in Beijing.
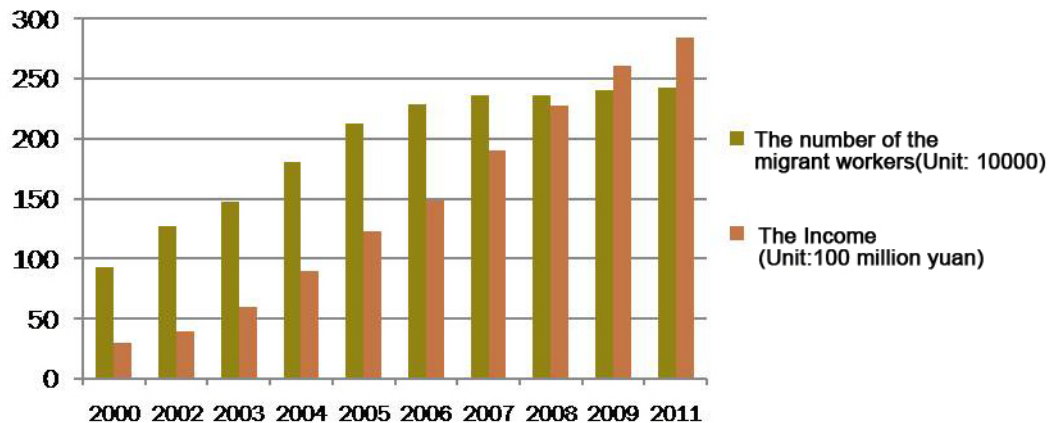

Figure 4: The Number of the Migrant Workers of Xinyang and The Mifrant Workers' Income

Source: the Project of the Master Plan of Xinyang City

In a word, Beijing and Xinyang are respectively typical labor import and export cities. Beijing is one of the important destinations of Xinyang's outflow population, and the population from Xinyang also accounts for a large population in Beijing's migrant population. The author has participated in the Assessment of the Master Plan of Beijing City project (2011) and the Beijing 2049 research project (2010), and now is compiling both the Projects of Capital Regional Spatial Development Strategy and the Master Plan of Xinyang City. So, on the basis of the above projcts, this paper takes Beijing and Xinyang as the research object, to study the migrant personnel flow's impact on urban planning.

3. Research Method

The research steps are as follows. Firstly, the author sended out questionnaires to the Xinyang migrant workers in Beijing to investigate their working and living conditions and their willingness of returning home. Secondly, the author did statistical analysis of retrieved questionnaires, and analyzed the living space of migrant workers both in Beijing and in Xinyang using GIS software, to find out the characteristics and problems of the spatial distribution.
In July 2013, we had a discussion with migrant workers from Xinyang who work in Beijing, and conducted a week-long survey. At last, a total of 100 valid questionnaires were collected. The respondents contain construction workers, restaurant waiters, engineering staff and other industry practitioners.

4. The Working and Living Situation of the Migrant Workers From Xinyang In Beijing

4.1 Statistical Analysis of the Questionnaire
Through statistical analysis of the questionnaire, we have a certain understanding of the migrant workers' working and living situation in Beijing.

According to survey statistics, respondents with college education and above accounted for only 25%, the majority of migrant workers belong to the low educational attainment. For the purpose of coming to Beijing, 80% of respondents indicated their purpose is to increase revenue and improve their living conditions, and they certainly achieved their purpose. But at the same time, asked if Xinyang and Beijing have the same job and income if they would choose out of work, more than 2/3 of people said they would not. Although compared in Xinyang, respondents' income has increased, but in fact, respondents monthly income is still below the average wage in Beijing (2012 Beijing's average monthly wage is 5,223 yuan). Half of the respondents monthly income is between 3000-5000 yuan, and more than 3/4 of respondents monthly income is below 5,000 yuan.

As to the status of marrige and children, 72.5% of respondents are married and have children, and 2/3 of married migrant workers' spouses and children live in Xinyang. It shows that the majority of migrant workers are separeted with their families, which is caused by a variety of causes. Firsty, most of jobs offered for migrant workers in Beijing are manufacturing workers and construction workers, and these industries need more male employees, and less female. Secondly, migrant workers' children to school in Beijing is quite difficult and costly. In addition, the cost of living for a family in Beijing is far higher than a person. We had a further investigation of the respondents with the spouse and children in Beijing, and found that their children have chosen Beijing's general schools and key school, but not schools specially for the migrant workers' children. In response to our surprise, the respondents indicated that the quality of education in schools specially for the children of migrant workers is much lower than Beijing's general schools, not to mention the key schools, and the respondents who brought their children to Beijing from Xinyang have relatively high income levels, so they would rather spend more sponsorship fee to send their children to the general and key school.

In the living space distribution, the respondents mostly live in the regions between the Fifth Ring Road and Sixth Ring Road or in the suburban counties close to the center city in Beijing. In the choice of the type of housing, more respondents live in sheds, dormitories provided by the company or rental units in city villages. Most of the living conditions of migrant workers are very poor, such as the construction workers. Eight people live in a 10 square meter room, and the fan, the air conditioning and other facilities are not allowed to be installed.

In the entertainment and leisure activities, 40 percent of respondents said no leisure activities, and in the remaining 60% of the respondents, more than half would rather play cards with colleague or read books and go net surfing at home, only 10 percent of the respondents said they would go to parks, museums, cinemas, theaters, fitness facilities and other entertainment facilities. For most of the migrant workers, Beijing's leisure and entertainment consumption is too high, and most of the facilities are concentrated in the central city, for the migrant workers living in urban fringe areas too far away.

Asked about the difficulties of working and living in Beijing, the most conmmon answers are the high property prices, high rent and serious air pollution, followed by lower income and costly medical care. Overall, Xinyang migrant workers in Beijing face with high living cost of the city, but get less income than the average of Beijing. They live in the urban fringe, difficult to integrate Beijing's colorful urban life, but also to endure the pain of separation with their families.

4.2 Spatial Analysis

To learn more about Beijing's migrant workers spatial distribution and accessibility of public facilities, we use spatial analysis for furthur study.

Capital Regional Spatial Development Strategy, the project the authors are paticipating in, has done spatial analysis on the proportion of the migrant population in different regions of Beijing, which shows that most of the migrant people live in the regions between the Fifth Ring Road and Sixth Ring Road, followed by the regions between the Fourth Ring Road and Fifth Ring Road and the suburban areas outside but close to the Sixth Ring Road, which is approximately consistent with the results of the questionnaire survey.
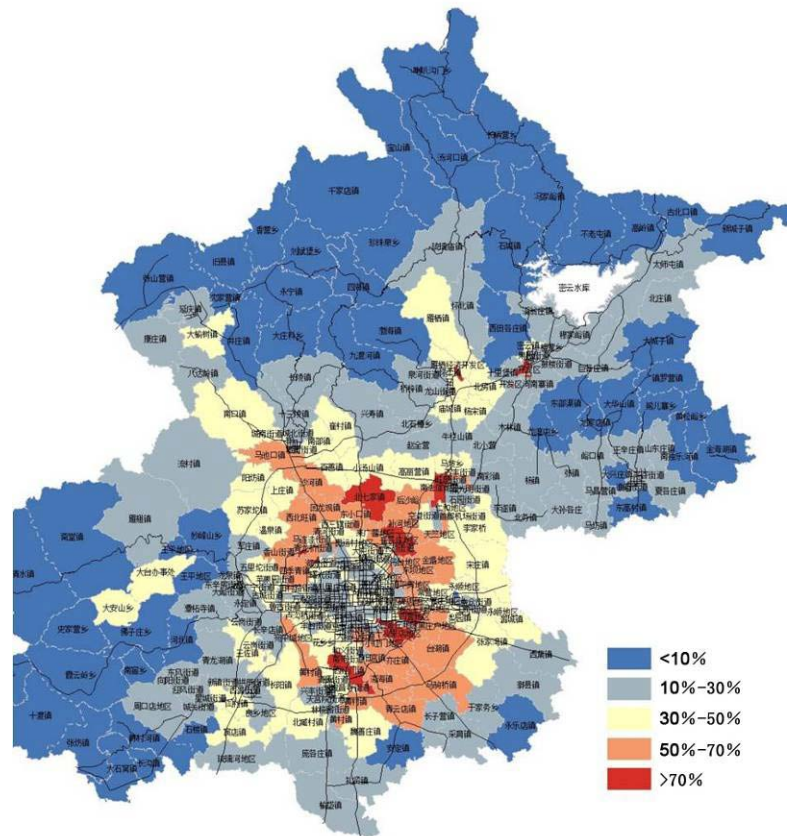

Figure 5: The Proportion of the Foreign Resident Population to the Resident Population

Source: the Project of Capital Regional Spatial Development Strategy

In order to study the accessibility of public facilities of different circle layer regions in Beijing, we selected a typical sector region, surrounding Beijing Metro Finst Line and Ba-tong Line within the Sixth Ring Road in the east area of the city as the study region. We took residential quarters (including city villages) as the basic research unit, the samples from the website- the Beijing Real Estate Transaction Management Network (www.bjfdc.gov.cn), and city villages from the Google map. We divided the residential quarters for different groups, including villas, highest-price commercial housing, high-price commercial housing, low-price commercial housing, lowest-price commercial housing, affordable housing, old housing before housing reform, the traditional courtyard houses, city villages, etc. Then we drew a figure of residential spatial distribution. In the public service facilities, we selected metro, primary school, hospital, business and park as the study object and drew figures of the distribution of the public facilities. Next, with the help of the method of shortest distance of ArcGIS, we calculated the average shortest distance to the public service facilities for each housing group. The smaller the shortest distance values, the more accessible the public services are. The results find out that the accessibility of public service facilites from the city center to the edge shows gradually decreasing feature. Therefore, the accessible of public service facilities in the urban fringe areas where most migrant workers live is relatively poor.
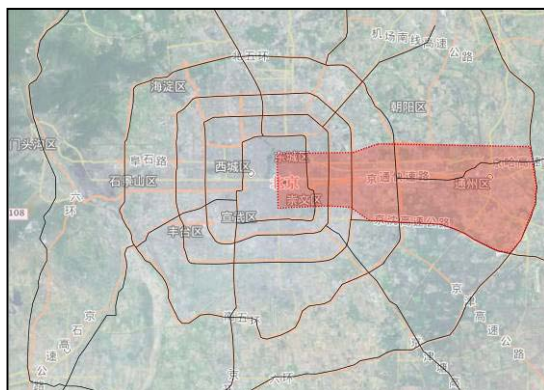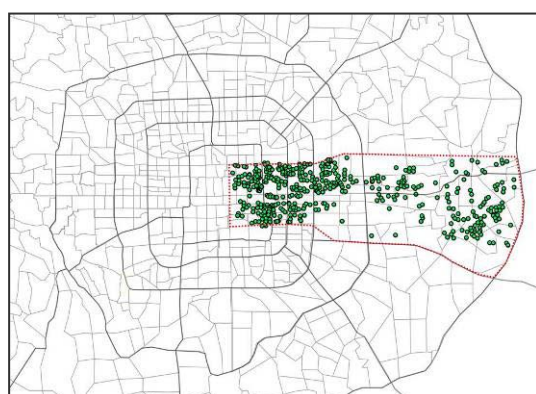
Figure 6: The Study Region

Figure 7: Spatial Distribution of the Sample Residential Quarters

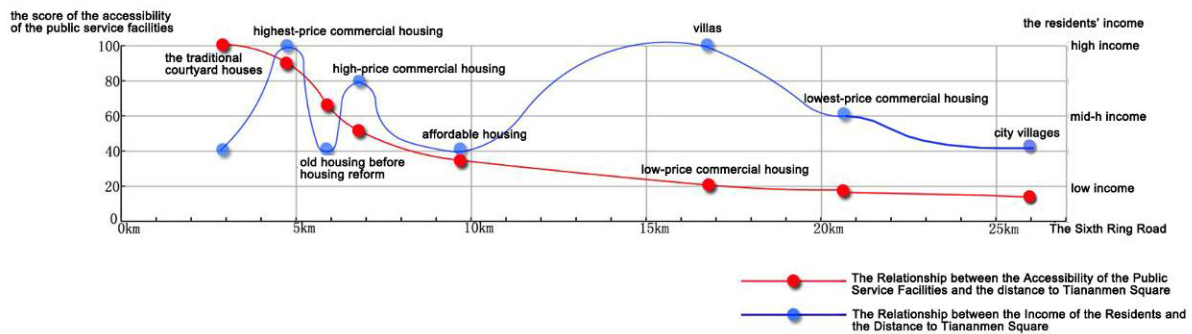*Figure 8: Spatial Distribution of the Public Service Facilities*

Figure 9: The Accessibility of the Publice Service Facilities and the Income of the Residents of Different Groups

5. The Migrant Workers' Wishes,Trends and Motivation of Returning Home

The main purpose of the migrant workers working in the big city is to improve the income and improve their lives. 69% of peasant-workers go into the big city(Beijing) from Xinyang city in order to increase income and improve their living, according to the results of questionnaire survey. If there are the same income in Xinyang city, 68% peasant-workers won't choose to go out as a migrant worker. Also some migrant workers (20%) of Xinyang is the purpose of learning ability, opening field of vision, looking for better development. Small percentage of rural migrant workers (9%) is for the purpose that his family and himself live in the city and become city people, for the realization of urbanization.
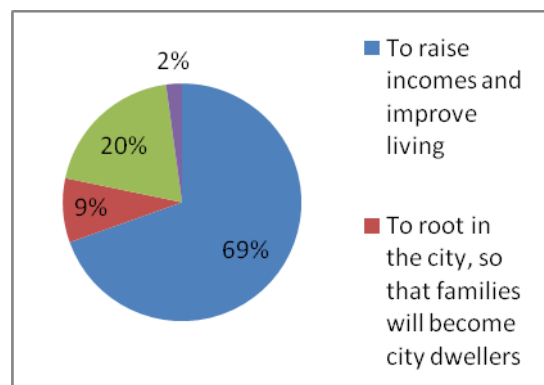

Figure 10: The purpose of migrant

The willingness of the migrant workers went back to hometown is strong, and the trend is obvious. Through the questionnaire survey, we found that 87.5% of migrant workers plan to leave Beijing, only 12.5% of the migrant workers plan to take root in Beijing. Migrant workers more tend to choose back to small city center or back to the villages and towns, after they leave the big cities. Questionnaire survey results showed that 46% of migrant workers will go back to Xinyang city center, 26.8% of people choose to return to villages, 14% back to the county towns, and a few people choose going to other urban development. Survey results reflect that at present most of the migrant worker plan to leave big cities, back home in the small and medium-sized cities and towns.
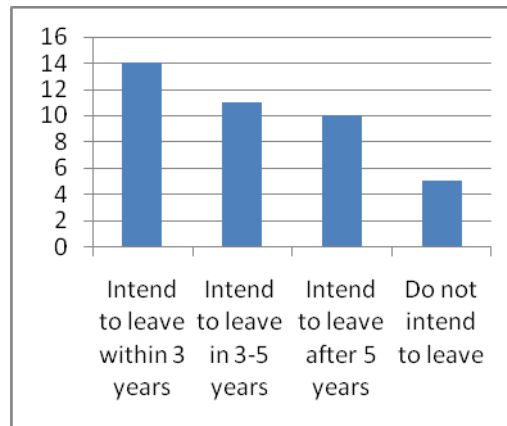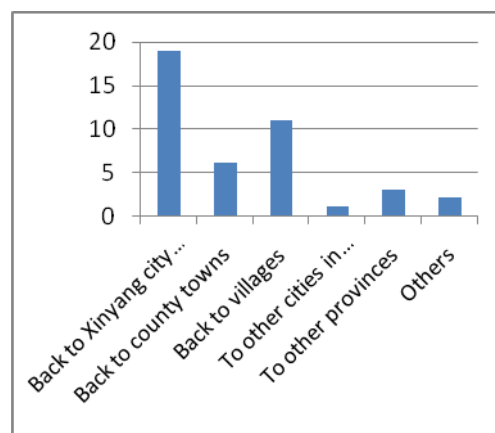
Figure 11: When would you leave Beijing

Figure 12: Where will you go after you leave Beijing

The impetuses of migrant workers returning home are that migrant workers are unable to reunite with their family. China's urbanization process is largely driven by the young rural migrant labor force. Because the cost of living in cities is higher, workers often work alone into the city, his family members are left behind in rural areas. Migrant workers flow between urban and rural areas, in a state of "migratory birds" which is used to describe half of urbanization. Left-behind in rural areas is "386199" (women, children and the elderly), so there is a lot of problems. Through questionnaire investigation, we found that main problems of rural migrant workers face are that they cannot be united with their families and that their children and old people can't get good care. The primary reason of migrant workers return home is want to reunite with my family (45.4%), followed by the good environment and little pollution in Xinyang(20%).
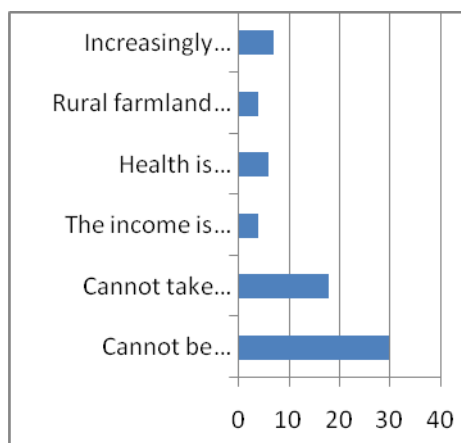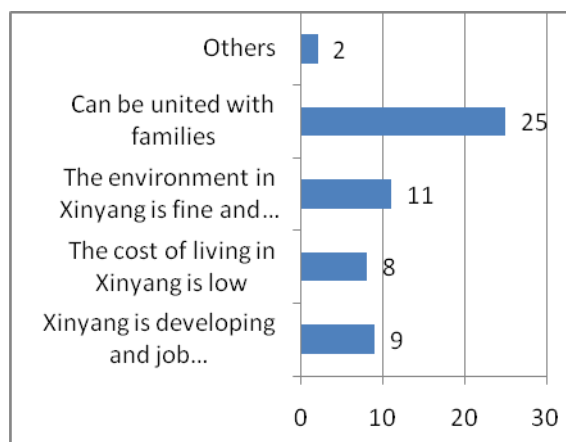
Figure 13: the main problem of migrant workers

Figure 14: The reason back to Xinyang City

6.   Conclusions and Suggestions

6.1 The Trend of Returning Home

Through the above analysis, we know that the main reason for the migrant is to improve income. Most of the migrant workers are planning to return home and work in their hometown in a few years. Migrant workers generally are plagued by apart with family for a long time. Area like Xinyang that people are going outside should provide a better working and living environment to attract migrants returned to census register area. China's urbanization has experienced 30 years of development, and the governments gradually change mind force from attaches great importance to the speed of urbanization to pay attention to the quality of urbanization. Under the new background, "migratory birds" urbanization is unsustainable. On one hand, migrant workers cannot enjoy the city, and are separated from their family, on the other hand it brings overpopulation problems in big cities. Migrant workers are stable employment and settlement in small or middle cities and towns is the trend of the times.

6.2 Suggestions for Beijing

Firstly, migrant workers need relatively low-cost, decent living space and basic living requirements. Beginning in 2009, Beijing began to implement the policy that migrant workers can apply for public rental housing residence. Public rental housing income limits for a single person is not more than 2000 yuan monthly, and for a family is not more than 3000 monthly. But for most of the migrant workers, whose monthly income is 3000-5000 yuan, they are not content to the income limits, but it's also expensive to rent ordinary housing for them, so they choose the city villages or the basement. Beijing should further refine the affordable housing policy, for different types, different income groups to develop multi-level affordable housing policy, to solve the housing problems of the sandwich layer. In addition, to alleviate the growing problem of residential segregation, we recommend introducing the living mode of

"big mixed with small settlements" which some scholars have proposed. We believe that this mode can not only better alleviate Residential Segregation, but also adapt to market mechanisms, and has a strong operability, either. This mode requires inhabited land planning to achieve mix of residential area, which means that in the the city and community level, the residential areas avoid over-concentration of homogeneous populations, while in the residential quarters and neighborhood level, the quarters maintain homogeneity, both for easily neiborhood development and construction, and the establishment of a sense of belonging and identity.

Secondly, as to the education problem of the migrant workers' children, although there have been a number of schools for migrant workers' children in Beijing, but most schools' teacher quality and hardware environment are much lower compared with the general schools in Beijing. Even if there are a few schools with better conditions, but some of them are also facing policy limitations and shortage of funds. As large population from Xinyang in Beijing, there are several schools run by people from Xinyang, such as Jingyuchen Shool, which has relatively much better conditions than other schools for migrant workers' children, and has been identified as "Beijing Private School Specialty building" project pilot schools by the Beijing Municipal Education Commission in 2007. But this school still faces a serious problem of insufficient funding, and the situation of the teachers's income equal to the restaurant waiters' leads to serious teacher job-hopping phenomenon. Beijing should strengthen the implementation of the support and relief policies for the schools for the migrant workers' children, or try to make the general schools or key schools open campus or affliated class for migrant workers' children to solve their children's schooling. In addition, with the evacuation of the functions of city center, Beijing should further implement the equalization of public services.

In addition to the concern for basic needs of life, but also we should concern about the cultural and spirit demand of the migrant workers, to provide welfare or low cost entertainment space for them. Such as for construction workers, construction site can regularly show movies or provide the creation space such as chess room, video halls and so on.

6.3 Suggestions for Xinyang

Xinyang should create conditions (employment environment, living environment, public services, infrastructure, etc.) to attract migrant workers to return home, to provide a good environment for them.

Most people would give top priority to the beautiful landscape environment as the advantages of Xinyang, which is the most mportant factor that attracting people to go back home for development. Therefore, urban planning and landscape construction of Xinyang should put environment protecting on the first place. About half of the respondents chose economic and industrial development as the most needed improvement area, so we can conclude that backward economic is the biggest factor to cause the outflow. Followed by nearly 1/4 of the respondents chose public service facilities construction and ecological environment construction and parkland as the most needed improvement area. Therefore, in the future urban development of Xinyang, we should protect the beautiful Landscape first, and seek a development path which is harmony with the natural. And we also should strengthenthe construction of medical, education and other public service facilities.

For the choice of living space, more than half of respondents wished they can purchase their own housing in Xinyang urban district, especially in Yangshan Area which is in rapid expansion recent years. This shows that most Xinyang migrant workers prefer to live in urban district with good public service facilities. On the choice of housing types, each with about 40% of the respondents selected multi-storey buildings and high-rise buildings. The residential land planning shoud provide diverse housing to meet the needs of different groups.

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