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Regional Determinants of Residential Intention of Migrants in China: Evidence from the Chinese National Migrants Dynamic Monitoring Survey in 2015

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Abstract

The effect of regional socio-economic features of the destination of floating population is paid rarely attention in literatures on migration in China. Based on the data of 2015 National Migrants Dynamic Monitoring Survey and relevant statistical yearbooks, this paper discusses the regional determinants

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(socio-economic features) of the residential intention of floating population in destination place, with hierarchical binominal/multinomial logistic regression model controlling the features at individual and family level. Results of hierarchical model indicate that the regional socio-economic features of the destination play different important role in the individual-level residential intention in various ways. The regional economic features make the effect on the residential intention of floating population by the means of the individual-level education, income, and whether living together with spouses at family level. However, the effect of the regional social features on the residential intention of floating population, to some extent, is ineffective. And, the rise of the individual-level socio-economic status, and living with spouses at family-level, will significantly promote the residential intention of floating population. We conclude that the residential intention of floating population is a rational decision made by individual and family based on the interaction between the individual/family characteristics and the regional-level socio-economic development features of the destination.

Migration has been becoming one of the most important social phenomena, which influences the social transitions in China significantly.[1] It plays a significant role in not only the human development of migrant individuals, and the living situations and dwelling arrangements of the family of floating population, but also the social development and the progress of the urbanization on the macro level as well. The residential intention of floating population is a direct feedback when migration, the strategic decision, occurs, and one of the most important consequences how the migrants adapt to the destination. Previous studies on migration attach great importance to causations, take various migration theories for example (Massey et al., 1993), or focus on social integration (Song & Tao, 2012; Chen & Zhang, 2015; Yang, 2015; Xue, 2016), both two concerns separating the consequence of migration and the situations if the migrants suit the destination. The residential intention could be regarded as a bridge, and even more, a decisive factor that connects migration behavior and social integration afterwards.

As one of the most important consequences of migration, the residential intention is not only the result, of which various factors affect, but also the rational decision and strategy of individuals which are based on the situations and stage of macro socioeconomic development. Yet previous relevant researches did not extend respectively from individual and family level, to the regional level (generally urban areas), as other studies on the subjects (such as the cause) of migration. What's more, previous studies usually apply regional survey data, but not national representative data, which usually focus on certain concrete type, such as occupation status, or regional floating population, or the discrepancy of residential intention between different generations of floating population (Zhu, 2007; Zhu & Chen, 2010; Fan, 2011; Zhu et al., 2012; Xie et al., 2014; Cao et al., 2015; Tang & Feng, 2015; Chen & Liu, 2016), but pay little attention to the macro socioeconomic level, and its influence on the residential intention (Li & Zhu, 2016; Yang et al., 2016), nor do previous studies regard the combination

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[1] Migrant, under the specific circumstance of China, is always defined as formal migration, which refers to the movement with the change of the *hukou* (household registration), while the floating population in China refers to the people who moved to the destination at least more than half a year, but without changing their household registration. As for the household registration system, and more definition on migrants and migration in China, please refer to the detailed papers. In this paper, we focus on the floating population, and migration/migrants and floating population will be used interchangeable.

study of micro-level and macro-level as the main factors that influences the residential intention of floating population.

Therefore, this paper mainly discusses the effect of regional socio-economic features of the destination on the residential intention of floating population, based on the 2015 Chinese National Migrants Dynamic Monitoring Survey data and the regional data from the relevant Statistical Yearbook, especially the direct or indirect influences which functions through individual features that may affect the residential intention of floating population.

According to the research targets, the structure of this paper is as follows: the first part is research background, which mainly describes the development of floating population and urbanization in China, and various problems when floating population confront with the decision of residential intention; the second part represents theoretical hypothesis according to the literature review; the third is about research design and methods; the fourth is about data analysis and research findings, and the last part is conclusions and discussions.

I. RESEARCH BACKGROUND

Massive temporary migrants, or floating and circulating population, is a new social phenomenon which emerges since the reform and opening-up in China. According to previous censuses and other relevant surveys, the size of floating population increased from 216 million in 1990 to 0.121 billion in 2000 (the 5th census). In 2010 (the 6th census of population), the figure reached 0.253 billion (Liang & Song, 2016; refer to White, 2016), and in 2015, 0.247 billion, which accounts one third of total urban population (Health and Family Planning Commission, 2015; Chen & Liu, 2016, refer to White, 2016). Figure 1 shows us the increasing process of the size of floating population and the urbanization level in China. Every aspect of so enormous scale of floating population, from their jobs, daily life, education, health care, dwelling arrangement to residential intention, deserves attentions of scholars and local governments.

The appearance of massive floating population is closely related to the transitions of the household registration system, and the urbanization process in China.
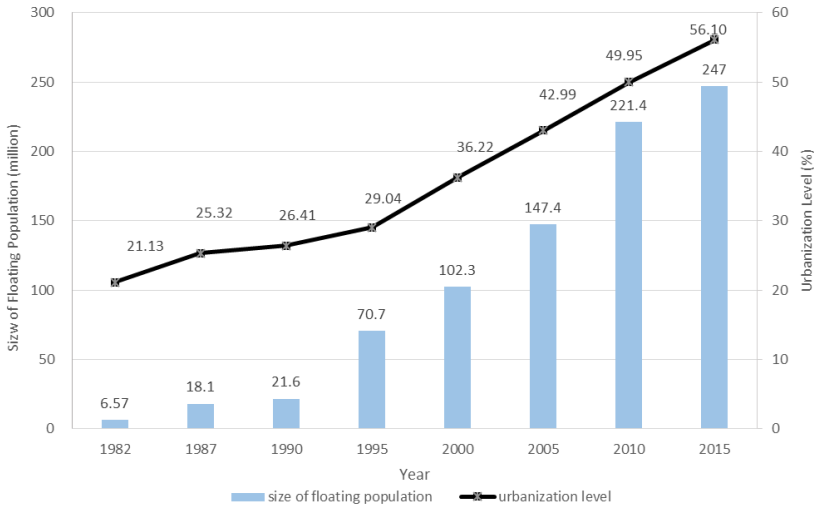
Figure 1 Historic transition of the size of floating population and the urbanization level in China

To begin with, the household registration system with Chinese characteristic is an important institutional background, and an obstructive factor that hinders the residential intention of floating population. Before the social reform, the migration between urban and rural areas was severely restricted, which was symbolized by the establishment of strict household registration system [2] in 1958, when urban-vs-rural dual household registration institution limited people's migration intention from rural to urban. Little number of rural population had the luck to realize the migration to urban with the change of their *hukou* status, by the means of receiving higher education, joining the army and through marriage (Wu & Treiman, 2004).

Since 1980s, with the advancement of reform and opening-up, the strict control of household registration system was broken, with massive labor force pouring into cities, forming large-scale floating population. The crucial connection between household registration system and floating population lies in the following two aspects. On one hand, registered people enjoy more

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[2] Solinger (2009) points out that, at that time, this institution was designed to serve for the fast industrialization of the newly-established China and the strategic aim of developing-cities-first.

privileges than those non-registered people in employment, medical care, education, housing and social security (Hao & Tang, 2015), and floating population found it very difficult to achieve the welfare of permanent residence in the destination, and the related social security and public services as well, thus lowering their residential intention. On the other hand, the high settling threshold of popular destination city, or the difficulty of changing registered residence, may affect the residential intention. Although the household registration system has great influence on the residential intention of floating population, the current policy self-evidently presumes that once the household registration barriers disappear, all the rural floating population are quite willing to be urban dwellers and acquire permanent urban residence. However, the results of survey on the residential intention of floating population show that's not the case: the overall residential intention of floating population is not high, and some of them choose returning to the origin (Fan, 2011; Zhu & Chen, 2010; Chen & Liu, 2016). Therefore, the discussion of residential intention of floating population under the background of household registration system is particularly essential.

And, during the fast urbanization process, the residential intention of floating population has become the vital factor affecting China's urbanization level and developing trend. With the rapid-rising economy, China's urbanization level is promptly soaring, represented by the obvious rise in urban population figure, numbers of cities, development scale of urban agglomeration and social and economic index in cities[3]. By the end of 2015, China's urbanization level has reached 56.10%[4]. However, the present dispute over the real level of China's urbanization does exist for the reason of floating population. The data, published by the National Statistical Bureau, is collected based on the permanent residents, including floating population living more than half a year in local place or living less than half a year but away from the place of domicile longer than half a year (namely, the 3rd and 4th category in the census). In fact, as an element to evaluate the urbanization level, the great number of floating population is faced with many problems, such as the difficulty in integrating into urban society, and

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[3] Refer to
http://ghs.ndrc.gov.cn/zttp/xxczhjs/ghzc/201605/t20160505_800839.html
(2017/4/6).
[4] Refer to http://data.stats.gov.cn/search.htm?s=总人口 (2017/4/16). The total number of the population is 0.137462 billion, including urban population of 7.7116 hundred million in China 2015.

delay in the process of attaining citizenship (Yang, 2015; Chen & Zhang, 2015). As a result, only those who do have the residential intention and can virtually stay in cities, rather than all the floating population, can be regarded as the true force which contributes to the urbanization. Therefore, the residential intention of floating population has become the major reason to explain the great difference between nominal urbanization and virtual urbanization.

Meanwhile, from the perspective of the policies, in the process of human-centered new-style urbanization advocated by the Chinese government, there is a strong correlation between the residential intention of floating population and policy-oriented topics, like how to promote the urbanization and reasonable distribution of floating population (Chen & Liu, 2016; Yang et al., 2016; Lin & Zhu, 2016). That is, the residential intention of floating population is indispensable when it comes to how to make policies to guarantee the rights of floating population, either staying in city or returning to country.

Besides, the inner constitution of floating population and the change of flowing direction may cause the different tendency of residential intention of the floating population. At the beginning of reform, the flowing direction of floating population is mainly from rural to urban area, from the backward northwest to the developed southeast areas, and from inland to coastal regions (Zhu, 2003, 2007). In recent years, although China's absolute scale of floating population maintains at a fairly high level, the size of labor force in the original place has been declining gradually. And although the main stream of floating population in China is still from county to city, the size of city-to-city or urban-to-urban floating population is increasing steadily (Ma et al., 2014; Liang & Song, 2016, refer to White, 2016), and some researches even predict that future trend of floating population would be dominated by urban-to-urban migration (Zhu et al., 2016). The reasons and purposes of urban-to-urban migration might be quite different from those of country-to-city/rural-to-urban. As the result of adaption to migrant activities and the destinations, residential intention, at the same time, might be quite different as well, that is, the residential intention in different populations varies by itself.

Another apparent change is about the constitution of floating population, especially the differentiation of those birth cohorts. Some scholars name those born after 1980 as the new-generation floating population, different from old-generation floating population after the reform and opening-up or

before 2000. Obvious differences between two generations can be seen in the following respects: reasons, patterns, and residential intention, and so on (Zhu et al., 2012; Li, 2014; Xie et al., 2014; Hao & Tang, 2015; Tang & Feng, 2015; Yang & Wang, 2016), which provide a new historical background for the research on the residential intention of floating population.

Due to limited space, this paper is unlikely to discuss every dimension and all the problems concerning the residential intention of floating population. But under the current social background of rapid transformation, the research of the problems need urgent concern.

II. LITERATURE REVIEW

2.1. INTERNATIONAL EXPERIENCE

Over a long period, migration theories mainly discuss why and who migrate, and the relevant consequences of migration. And the migration reasons are the major topic.

The literatures on migration decisions have undergone a long process of development, evolving from the basic push- pull theory structure to various theories at both macro and micro level. Confronted with the highly diversified and fragmentized field of research, Massey et al. (1993) tried to classify the theories of migration into two categories. Firstly, it's about how migration happens, including neoclassic economics, new economics of labor migration, dual labor market and world system theory, etc.; Secondly, it's about how migration stream sustains, mainly consisting of migration network theory, constitution theory, cumulative causation theory, and migration system theory. Besides, the gravity model put forward by Geographer has been often quoted (Stewart, 1941; Zipf, 1946). In this paper, residential intention of floating population is regarded as a rational option by individuals based on the combination of personal features and regional economic features of destination. In the meantime, the authors aim to summarize the international theory researches from the angle of rational choice of economic motivation and social-culture motivation.

The early push-pull theory argues that migration decision is made by the combined effects of the pull from destination and the push from the origin place, with elements to enhance migrants' living standard as the pull of destination, and unfavorable elements as the push of the origin place

respectively. Following the classic push- pull theory, neoclassical economists put forward dual economic structure theory, on the basis of cost-and-profit theory, which explains the migration phenomenon, holding that the average income discrepancy between destination and the origin places at the macro-level plays a principal role during the process of migration (Zhang et al., 2015; Yang et al., 2016; Yang, 2016). Neoclassical economists state that nationally speaking, the imbalance in the supply and demand of labor between city and country, caused by industrialization and urbanization, is the reason why a large number of surplus labor in rural areas flow into urban areas; internationally speaking, the same imbalance also exists between developed industrialized nations and developing ones, causing the labor flow from the developing nations to the developed ones. Owing to the existence of labor surplus in rural areas / developing nations, the migration to the urban areas / developed nations is limitless, when employers only need to offer a minimum wage to support the most basic needs of migrants' life (Lewis, 1954).

And then, dual labor market theory divides the labor market into primary sector and secondary sector: the former requires only a few stable employees who are highly skilled and highly paid; while the latter needs a large number of unstable employees who are low-skilled and low-paid. This division causes the fact that labor-intensive sectors (secondary sector) cannot attract local labor force, thus, can only absorb a great many migration population (Piore, 1979). However, the migration human resource theory emphasizes that human resource talents, like individual education level (formal and vocational education) and proficiency of local language of the destination, are beneficial to the improvement of individual economic capability, consequently beneficial for their staying in the destinations (Jensen & Pedersen, 2007; Chen & Liu, 2016).

The new economics of labor migration by Stark (1991) makes a breakthrough with the individual-unit hypothesis of neoclassical economics, and the decision is mainly discussed at the family level, which is, temporary migration is regarded as a family decision of maximum benefit and minimum risk, helping the migrant families utilize hometown resources like land and diversify their employment opportunities. All the theories mentioned above are trying to explain how individual economic motivation systemizes the international and internal migration within a country.

Although economic motivation is the dominant factor in migration theory, researchers in favor of how-migration-maintains theory focus on the

influence of social-culture motivation on residential intention. For instance, migration network theory accounts for how migrants create and keep social relations with other migrants like return-home family members and friends, and how migration brings about social networks (Haas et al., 2015). On the other hand, migration constitution theory states how migration is essentially relevant with other forms of exchange (merchandize, concept, and money flow) in the course of migration, how exchange forms change the original conditions in the society of destination and flow-out place (Haas et al., 2015). These social-culture motivations regard migration as a dynamic social course (Massey, 1987), so the migration intention to live or return is influenced by social-culture factors, in particular, their social and cultural attachment to the flow-out place and destination (Chen & Liu, 2016).

2.2 RESEARCH ON RESIDE INTENTION: WHY WANT TO STAY OR RETURN BACK?

Circulation migration is a crucial concept to describe the internal migration in developing countries, namely, migrants don't have the intention to permanently change their domicile and they plan to return to their original domicile at the beginning of migration. This type of migration is temporary, moreover, in most cases, is once or multiple circular migration commuting between the destination and the original place (Zhu, 2004). In the sense of not planning to change permanent domicile, the concepts of non-permanent migration, temporary migration, and circulation migration are similar. Many studies in developing countries show that the scale of temporary migration is far larger than that of permanent settlement, and exerts more crucial influence in society and economy. As is shown in Hugo's (1978, 1982) researches in Indonesia, most migrants take the form of circulation migration, where migrants still regard their source villages as a permanent homeland, and return there eventually. Many Indonesian employees, for a long time, keep dual identity by working at one place, while consuming and investing at the other.

The subsequent migration theory explains the inner circulation migration in developing nations. The dual-labor-market theory explains that on the demand side, employers are in need of cheap and temporary migration labor (Piore, 1979; Zhu, 2007; Zhu et al., 2012). The new economics of labor migration by Stark (1991) explains that migrants, on the demand side, accept lower pay and choose the temporary migration with some of the family members staying in the homeland. That is, earning money in the city while spending money in the country. The migration transformation theory by

Zelinsky (1971) fatherly shows that: the circulation migration appears mainly in the early stage and later period of industrial society transformation, which plays an irreplaceable role in the certain period of the development of industrialization and urbanization, and it will one day take another form on the premise of more advanced level or higher stage of social economic development (Zhu, 2004, 2007; Zhu et al., 2012).

The influence of the structure of circulation migration theory upon the discussion on the residential intention of migrants lies in that the existence of circulation migration is the result of various barriers, individual economic motivation and family decision, so they have no intention to change their permanent domicile. However, the circulation migration does not necessarily account for their decision whether they stay in the destination or return to their homeland, as this form of migration is temporary, and the decision of live-or-leave is dependent on a series of factors beyond individual features, like family, community, or even the macro social and economic features of the destination. A sequence of study on returning migration put more emphasis on the effects that social-cultural motivation and social integration factors have on migrants' returning home (Fan, 2011; Chen & Liu, 2016). A research on return migrants by Zhao (2002), proves that long-term separation from family and strong desire of family reunion, or family need, are the major forces to promote their intention of returning home, rather than for a higher-paid job (Wang & Fan, 2006). What's more, return migrants, in many cases, represent low-skilled individuals and a negative selection (Wang & Fan, 2006). The previous studies of theories and experience on the live-or-leave decision of migrants show that all unfavorable conditions go against the enhancement of the residential intention, from long period staying in the segmented and unstable secondary labor market, where individuals suffer from experience of various discrimination and exclusivity because of lack of urban household registration, together with long-term separation from family, homeland and household.

2.3 INDIVIDUAL AND FAMILY FEATURES

The features of individuals and families are influential in the residential intention decisions of floating population. This paper intends to comb factors affecting the residential intention of floating population from the angle of individual's demographic features, social and economic status and so on. Firstly, the individual's demographic features. Viewed from demographic factor, in empirical studies, age, gender and marital status have different

influence on the residential intention of floating population. Most studies point out that generally age is not distinctly related to the residential intention (Fan, 2011; Meng & Wu, 2011; Zhang et al., 2014; Yang, 2016), while some point out that age has distinct negative effect on the residential intention, that is, the more elderly migrants tend to flow back (Yang & Luo, 2015; Huang et al., 2017a). If the age effect is further decomposed into cohort effect, there are some researches on residential intention from new generation's angle (Zhu et al., 2012; Li, 2014; Xie et al., 2014; Hao & Tang, 2015; Tang & Feng, 2015; Yang & Wang, 2016; Huang et al., 2017a). As far as gender is concerned, most studies argue that the males' residential intention is lower than that of the females (Chen & Zhu, 2008; Zhu & Chen, 2010; Meng & Wu, 2011; Cao et al., 2015; Sun, 2015; Zhang et al., 2015; Yang, 2016; Chen & Liu, 2016; Liang, 2017), while some researches find that males' residential intention is higher than that of females (Wang et al., 2014; Yang & Luo, 2015; Tan et al., 2017), and some other studies show that there is no distinctive correlation between age and residential intention (Fan, 2011; Hu et al., 2011, Ye, 2011; Wang, 2013; Yu, 2013; Hao & Tang, 2015; Wang, 2015; Yang & Wang, 2016; Guo et al., 2017; Huang et al., 2017b). From the aspect of marital status, previous studies have different opinions on the function and direction of marriage. In general, the residential intention among the married is lower than that of the single (Chen & Zhu, 2008; Zhu & Chen, 2010; Hu et al., 2011; Wang, 2013; Chen & Liu, 2016; Yang & Wang, 2016), however, some scholars hold that the residential intention of the married is higher than that of the unmarried (Sun, 2015; Zhang et al., 2015; Wang et al., 2016; Yang, 2016; Tan et al., 2017), and some others hold that marriage has no effect on the residential intention of floating population (Hu et al., 2011; Yu, 2013; Zhang et al., 2014). The residential intention of floating population is obviously improved among the married migrants who live together with their spouses, as long as the situation whether they can live together with their spouse or kids is appropriately controlled (Fan, 2011; Ye, 2011; Wang, 2015; Zhang et al., 2015).

As far as individual's socioeconomic status is concerned, education level, income and occupational type have a positive effect on individual residential intention generally. Most studies tend to hold that with the improvement of the education level of floating population, their residential intention is distinctively improved accordingly (Chen & Zhu, 2008; Zhu & Chen, 2010; Hu et al., 2011; Hu et al., 2011; Wang, 2013; Yu, 2013; Zhang et al., 2015; Tang & Feng, 2015; Chen & Liu, 2016; Yang & Wang, 2016; Guo et al., 2017; Huang et al., 2017b; Liang, 2017), while some researches

state that education has no distinctive influence on residential intention (Fan, 2011; Wang, 2015; Yang & Luo, 2015). As for income, its impact on individual residential intention is not consistent, partly because of the difference in measurement and operational definition of the concept of income. In general, the residential intention of floating population rises as their income improves (Zhu & Chen, 2010; Hu et al., 2011; Li, 2014; Yang & Luo, 2015; Zhang et al., 2015; Wang et al., 2016; Yang, 2016), while some researches state that income has no significant influence on residential intention (Ye, 2011; Zhang et al, 2014; Yang & Wang, 2016), and some even hold that the rising of income has restrained migrants' rising intention of household migration. As for occupational type, the consistent results of previous researches indicate that employers (vs. employees) (Wang et al., 2016; Yang, 2016) and self-employed migrants have higher residential intention (Hu et al., 2011; Cao et al., 2015; Wang, 2015; Yang & Luo, 2015; Huang et al., 2017b).

Among other individual variables, some factors like *hukou* status (Zhu & Chen, 2010; Meng & Wu, 2011; Yu, 2013; Yang & Wang, 2016), local social networks (Hu et al., 2011; Ye, 2011; Zhang et al., 2015; Chen & Liu, 2016; Huang et al., 2017b), and the fact whether they have medical insurance or not (Zhu, 2007; Zhang et al., 2015; Zhu & Lin, 2016; Yang, 2016; Guo et al., 2017) are under control in some researches.

Besides, according to the new economics of labor migration theory, family state and structure are also primary factors influencing the residential intention of floating population. The factors at family-level include family wealth, whether living together with spouse and offspring, and whether family members support each other or not (Wang, 2013). Researches show that the major active factors affecting residential intention are the living condition with their spouse and offspring (whether they live together or not), duration in destination; and the extension of duration in destination is beneficial to their enhancement of residential intention (Li, 2014; Zhang et al., 2014; Sun, 2015; Wang, 2015; Zhang et al., 2015; Liang, 2017).

2.4 MACRO-SOCIOECONOMIC DEVELOPMENT OF THE DESTINATION PLACE

Both dual market theory and location theory emphasize that residential intention of floating population is influenced by socio-economic features of the destination, including the features of geographic location. Viewed from an analytical framework, it is necessary to discuss urban area's influence on

individual's residential intention after controlling features of the origin and the destination simultaneously.

The features of the original place are mainly shown as whether migration is intra-provincial, that is, whether the migrants move within the province or between provinces; while the features of the destination are defined as the features of the destination region (Hu et al., 2011). There have been some studies on the effect of the features of the original place (Zhu, 2007; Chen & Zhu, 2008; Zhu & Chen, 2010; Hu et al., 2011), and some are about the influences of the socio-economic features of the destination place on the residential intention of floating population only from the angle of the destination (Lin & Zhu, 2016), which points out that there is distinctive discrepancy in household migration intention among floating population, and the key factors influencing the space discrepancy in their residential intention are the socioeconomic development level and social integration level of floating population in destination. Yang et al. (2016) shows in their research that regional economic development level has distinctive positive influence on the residential intention of floating population. But compared to countless research literature on migration causes, studies about how the regional socio-economic features of the destination affect the residential intention of floating population, are relatively few in number. More importantly, this paper hold that the residential intention of floating population is individual's feedback and rational choice to socio-economic features of the destination on the basis of the characteristics of individual and family, so it is a prerequisite to integrate individual level or family level into macro-level regional features of destination.

2.5 COMMENTS ON RESEARCHES

Just as the researches on migration causes are basically structured on the basis of multi-levels like individuals, families and regions, the above literature review shows that residential intention, as the consequence of migration, is also affected by multi-level factors, like individual and family features and regional socio-economic features of the destination, but not simply by factor at a single level. However, present empirical research seldom discusses the influence of socioeconomic features on residential intention, by combining the regional features of the destination and individual features; and there are even fewer researches address on how regional features of the destination affect individual residential intention through individual and family features.

Viewed from theories, this deficiency in studies reveals the lack of organically combining all influences at all levels so as to explain the behaviors and consequences of migration. Viewed from research methods, it shows the lack of applying hierarchical linear model, and does not include regional level characteristics of the destination in level-2 model, like regional social and economic features of the destination (most likely the interaction effects). Without such control, there's no point discussing cross-level interaction effect between regional level and individual/family level.

From the data angle, many researches only apply non-random regional survey data or focus on one subgroup of floating population under the standard of certain social groups, rather than using national representative data, thus causing major problems on the representativeness of survey data (moreover, unable to infer to the population of migrants/floating population). Definitely, it is very difficult to perfect the survey of floating population, from the design of sampling frame, sample selection to final implementation.

2.6 RESEARCH HYPOTHESIS

Based on the above comments, this article intends to focus on the influences that the regional social and economic features of the destination exert on the residential intention at individual level of floating population, and maintain that the residential intention of floating population is, based on individual and family features, the individual reflection to macro socioeconomic features. Therefore, the article states that the residential intention of floating population is improved according to better regional social and economic features, which means, with other individual and family features controlled, the regional social and economic index of the destination has positive influence on the residential intention of floating population. Specifically they are as follows:

First, the higher regional economic development level is, the stronger residential intention of floating population is;

Second, the higher the regional per capita income is, the more likely it is to increase the residential intention of floating population;

And then, the higher regional social development level is, the stronger residential intention of floating population is;

Finally, regional socio-economic development level can influence residential intention in different ways: regional economic development level's influence via features of individual education and income; while regional social development level's influence through family features.

IV. DATA AND METHODS

4.1 DATA

The data used in this paper is the 2015 national floating population dynamic monitoring survey (MDMS2015). Dynamic monitoring survey of the floating population is a cross-sectional survey since 2010, which is carried out by National Health and Family Planning Commission in the destination. The survey includes 31 provinces together with Xinjiang Construction Corps, with the following types of floating population as respondents respectively: those who live more than a month in the destination without household registration between the ages 15 to 59. Using the China annual report of the total floating population in 2014 as the basic sampling frame, the sampling method is stratified, multi-staged, probability proportionate to size (PPS). The sample size in 2015 is 193125, and after data-cleaning, 105500 samples in 304 cities remain. To explain those missing samples, 6633 of them is caused by the missing of the regional features of the destinations, 80992 of them is due to the item-missing of the main variables.

The regional-level data are collected from 2015 China City Statistical Yearbook and 2015 China statistical yearbook. All used indexes are statistical data in 2014[5].

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[5] There are two reasons that this paper use regional social-economic data of the destination in 2014. one is based on the principle of causal relationship, the other is to respond the expectation effect, that is the reside intention of floating population is made with judgment of the expectation of the destination cities' socioeconomic development. It's similar with the conception of expected return in the Neoclassical Economics theory in the micro level.

During the process of data analyzing, 2015 socioeconomic data of the destination is also used in order to respond to its effect on reside intention. Results show that the consequences are similar while we use the 2014 data, and that is why we stick to the 2014 data. Meanwhile, it also may prove that when the strategy of residential intention is made, floating population may consider expectation and reality at the same time. Regional social-economic situations may not change dramatically in two consecutive years, and it proves essentially stable, and that is the reason why the results are almost the same.

4.2 MEASUREMENT AND VARIABLES

The dependent variable is resident intention, defined as the intention of long-run settlement in the destination as opposed to return to the countryside in the long run (for more than five years). In the questionnaire, the answers are categorized into three categories that are "yes", "no" and "not decided". Such question is different from the *hukou* conversion. The article focuses on the residential intention of floating population in the future, which is less constrained by social institutions especially the household registration system. Yet, permanent *hukou* conversion contains not only the decision in the choice of resident place, but also the social welfare related to *hukou* status, so that the connotation of *hukou* is more than that of resident intention. Thus, the term residential intention underlies the choice of resident place.

The independent variables include those from individual to regional level. At the individual level, demographic characteristics, social structural characteristics and familial traits are included. The demographic characteristics contain age, gender (male=1) and marriage status (the married are coded in 1); while social structural characteristics contain personal annual income (in the log-form), years of schooling, occupational types (as a set of dummy variables, of which the reference group is manual workers) and attributes of work unit (*danwei* in Chinese, also as a set of dummy variables, of which the reference group is self-employed). At the familial level, the variables include a dummy variable that measures whether the spouse lives with the respondent (yes=1), a dummy variable indicating whether child (or children) lives with the respondent, duration in destination and migration scale (whether the interviewee is moving out of the province, no or intra-provincial=1)，and a dummy variable indicating whether the interviewee has medical insurance. Please see table 1 for more details and descriptive statistics about the independent variables.

According to the labor market segmentation theory, location theory and the gravity model of migration, three dimensions are used here to describe the regional socioeconomic features of the destination: population size, social and economic development level. More specifically, GDP and average wages of staff and workers on the job are selected as economic indexes, the number of hospital beds as social development level. According to the gravity model, the population size of municipal districts is used as the

index of the population size of the destination in the model.[6]

4.3 METHODS

Hierarchical linear model is an appropriate model for the nested structure data (individual unit and regional unit). It can model individual variables at the micro-level and contextual variables (like community, region etc.) at the macro-level simultaneously. As the dependent variable is a categorical variable (dichotomous or three-category variable), the hierarchical logit model will be used here, and the link function varies with the attributes of the dependent variable. To be specific, a logit function in the level-2 logistic model for the dichotomous dependent variable; and a multinomial logit function for the 3-category dependent variable. Please see the formula of hierarchical linear model in equations, where p_{ij} denotes the probability of individual i at region j intending to settle down in the destination, all independent variables at level-1 are variables in the individual level and independent variables at level-2 are variables in the regional level.

Level-1 model:

$$P(Y_{ij} = 1|\mathbf{B}) = p_{ij};$$
$$\log\left(\frac{p_{ij}}{1-p_{ij}}\right) = \beta_{0j} + \beta_{1j} * \text{gender}_{ij} + \beta_{2j} * \text{age}_{ij} + \beta_{3j} * \text{educ}_{ij} + \beta_{4j} * \text{marriage}_{ij} + \beta_{5j} * \text{income}_{ij} + \beta_{6j} * \text{cocp}_{ij} + \beta_{7j} * \text{cochild}_{ij} + \beta_{8j} * \text{occup1}_{ij} + \beta_{9j} * \text{occup2}_{ij} + \beta_{10j} * \text{occup3}_{ij} + \beta_{11j} * \text{occup4}_{ij} + \beta_{12j} * \text{hcare}_{ij} + \beta_{13} * \text{migtime}_{ij} + \beta_{14j} * \text{danwei1}_{ij} + \beta_{15j} * \text{danwei2}_{ij} + \beta_{16j} * \text{danwei3}_{ij} + \beta_{17j} * \text{migscale}_{ij};$$

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[6] According to the statistical yearbook, there are two kinds of population size, one refers to the city's global population, the other is only restricted to urban population. Strictly speaking, the former may include county population, which may enlarge the municipal population. From the urbanization perspectives, municipal area is the core of a city, therefore, the paper chooses the latter as measurement variable of municipal population size. What needs explain is that there are altogether 348 districts, but the statistical yearbook has only 304 integrated districts datasets, therefore parts of the sample missing is because of the absence of regional characteristics.

Level-2 model:

$$\beta_{0j} = \gamma_{00} + \gamma_{01} * pop_j + \gamma_{02} * hosp_j + \gamma_{03} * gdp_j + \gamma_{04} * salary_j + u_0;$$

$$\beta_{1j} = \gamma_{10}; \quad \beta_{2j} = \gamma_{20};$$

$$\beta_{3j} = \gamma_{30} + \gamma_{31} * pop_j + \gamma_{32} * gdp_j + \gamma_{33} * salary_j + u_3;$$

$$\beta_{4j} = \gamma_{40} + \gamma_{41} * pop_j + \gamma_{42} * hosp_j + \gamma_{43} * gdp_j + \gamma_{44} * salary_j;$$

$$\beta_{5j} = \gamma_{50} + \gamma_{51} * pop_j + \gamma_{52} * gdp_j + \gamma_{53} * salary_j + u_5;$$

$$\beta_{6j} = \gamma_{60} + \gamma_{61} * pop_j + \gamma_{62} * hosp_j + \gamma_{63} * gdp_j + \gamma_{64} * salary_j;$$

$$\beta_{7j} = \gamma_{70} + \gamma_{71} * pop_j + \gamma_{72} * hosp_j + \gamma_{73} * gdp_j + \gamma_{74} * salary_j;$$

$$\beta_{8j} = \gamma_{80};$$

$$\beta_{9j} = \gamma_{90};$$

$$\beta_{10j} = \gamma_{100};$$

$$\beta_{11j} = \gamma_{110};$$

$$\beta_{12j} = \gamma_{120};$$

$$\beta_{13j} = \gamma_{130} + \gamma_{131} * pop_j + \gamma_{132} * gdp_j + \gamma_{133} * salary_j;$$

$$\beta_{14j} = \gamma_{140};$$

$$\beta_{15j} = \gamma_{150};$$

$$\beta_{16j} = \gamma_{160};$$

$$\beta_{17j} = \gamma_{170} + \gamma_{171} * pop_j + \gamma_{172} * hosp_j + \gamma_{173} * gdp_j + \gamma_{174} * salary_j;$$

In the model specification, not all the level-1 coefficients of the independent variables are specified to include the level-2 independent variables in level-2 equations. Three reasons are considered in this model specification. Firstly, to simplify the model, some dummy (or categorical) variables as controlled ones in level-1 will not be considered about its effect of the level-2 independent variables. Secondly, the effect of the level-2 independent variables will not be considered to those coefficients of continuous variables, which are not significant in the level-1 model. Thirdly, due to the limitation of data quality, some level-2 model, corresponding to the continuous variables in level-1, do not include some level-2 independent variables, especially the number of hospital beds representing the social development of the destination; otherwise, the whole model could not be estimated, leading us have to drop those variables in the model specification.

4.4 ANALYTICAL STRATEGIES

The dependent variable contains three categories: "yes" (intent to reside), "no", and "not decided/uncertain". In order to decide the number of categories used in the model, it's essential to compare the characteristics of three subpopulations before the analysis, to test the differences between them are significant or not. The subgroup of "not decided" is significantly different with other two subgroups, according to the comparative analysis followed, which means that they have to be regarded as a specific subgroup.

Based on the test results, we will use two methods to estimate the statistical model, so as to explain the effect of regional socio-economic development level on the residential intention of floating population, especially the sub-population with unambiguous intention. The first is to use the total sample including three sub-population directly, with multinomial logit function to estimate the full model, which could show us the similarities and differences between three categories. The second is to compare the "yes" and the "no" subgroups to estimate the effects of regional socioeconomic features on the residential intention of floating population with definite intentions. The logic of the second method is similar to the robustness test for the first method.

V. RESULTS

5.1 COMPARISON RESULTS

As described above, we should first test whether "not decided" group is significantly different from the other two groups with certain residential intention, so as to decide the subsequent analysis. Relevant results are in Table 1 and Figures 2-11.

From individual features (in Table 1 and Figures 2-4), the distribution of the residential intention of floating population between genders is not distinctively different; however, when it comes to age and marital status, the difference is very apparent. The differences of the mean age of three groups are significant ($p<0.05$), with lowest proportion of "yes" in 15-24 age group, comparatively higher proportion of "yes" in 25-33 age group and 35-44 age group, and decreasing proportion in 45-60 age group. The highest proportion of "not decided" group appears in 15-24 age groups, and proportion of "no" is almost the same in other age groups. It's closely related to the individual future life and career planning of floating population.

From marital status' perspective, married floating populations enjoy a

higher proportion of residential intention than that of the unmarried, and the proportion of "not decided" is higher in unmarried group. Among married group, the proportion of both "no" and "not decided" is comparatively low, and the distribution of residential intention changes with whether they are living with spouses or not. Among the not-living-with-spouse group, both the proportion of "no" and "not decided" are higher than those of living-with-spouse group, which shows marital status and whether living with spouses are two crucial factors influencing the residential intention of floating population.

Table 1. Descriptive Statistics

Variable	Variable description	Yes (N = 65521)	NO (N = 11590)	DK (don't know) (N = 28389)
Individual level				
age	age	37.62 (7.96)	38.31 (8.83)	37.23 (8.34)
gender	Gender, male=1, female=0	0.59 (0.49)	0.6 (0.49)	0.59 (0.49)
education	Years of schooling	9.84 (2.92)	9.22 (2.7)	9.29 (2.58)
marriage	marital status, the married=1, unmarried=0 (including the single/widowed/divorced)	0.98 (0.14)	0.97 (0.17)	0.97 (0.16)
income	log-form of individual income	8.22 (0.60)	8.15 (0.50)	8.14 (0.50)
Occupational type(reference group=manual labor)				
manager	managers (yes=1)	0.01 (0.07)	0 (0.06)	0 (0.04)
profession al	professionals (yes=1)	0.07 (0.26)	0.05 (0.22)	0.05 (0.21)
clerks	clerks (yes=1)	0.02 (0.14)	0.01 (0.11)	0.01 (0.09)
service	employees in commercial and service industry (yes=1)	0.65 (0.48)	0.52 (0.50)	0.62 (0.49)
Work-units(*danwei*) type (reference group=self-employed sector)				
state	Work in the state-sector (yes=1)	0.08 (0.27)	0.09 (0.28)	0.05 (0.21)
private	Work in the private-sector (yes=1)	0.24 (0.43)	0.32 (0.47)	0.27 (0.44)
market	Work in the market-sector (yes=1)	0.08 (0.27)	0.1 (0.29)	0.08 (0.27)
insurance	Whether the interviewee has a medical insurance (yes=1)	0.94 (0.24)	0.96 (0.2)	0.95 (0.22)

cocp	Whether the spouses of the interviewee are coresiding (yes=1)	0.91 (0.29)	0.7 (0.46)	0.81 (0.39)
cochild	Whether the children of the interviewee are coresiding (yes=1)	0.66 (0.47)	0.34 (0.47)	0.46 (0.5)
Duration	Duration in destination (years)	5.92 (5.27)	3.41 (3.99)	3.96 (4.11)
Migscale	Intra-province migration (=1) vs. inter-province migration (=0)	0.53 (0.50)	0.41 (0.49)	0.43 (0.50)
Regional level (2015)				
Population size	municipal population size	683 (600.44)	656.38 (560.01)	657.98 (565.67)
GDP	Log GDP	17.43 (1.13)	17.31 (1.08)	17.34 (1.08)
Msalary	log average wages of staff and workers on the job	10.97 (0.25)	10.93 (0.23)	10.94 (0.23)
Hospital beds	Numbers of hospital beds	40601.51 (35151.4)	36365.78 (31427.94)	37182.57 (32049.28)

Note: the standard errors in the parenthesis. In addition, we do t-test for each two groups for all variables (yes vs. no, yes vs. don't know, don't know vs. no). For simplicity, we use group1 (yes vs. no), group2 (yes vs. don't know), group3 (don't know vs. no) to refer to the comparisons separately. There is a significant difference among 3 groups for age variable. For gender variable, there is a significant difference in group1 and group3, but the difference in group2 is not significant. For marriage variable, there is a significant difference in group1 and group2, but the difference in group3 is not significant. There is a significant difference among 3 groups for income and education variables. For occupational type variable, there is a significant difference among 3 groups for managers, clerks and service variables; for professionals, there is a significant difference in group 1 and group2, but the difference in group 3 is not significant. For work-unit type variable, there is a significant difference among 3 groups for state and private sector; for market sector, there is a significant difference in group1 and group3, yet the difference in group2 is not significant. For variables of insurance, cocp, cochild, migscale, there is a significant difference among 3 groups. For variables in the regional level, there is a significant difference among 3 groups for GDP and hospital beds. For population size and msalary variables, there is a significant difference in group1 and group2, but the difference in group3 is not significant.

Figure 2. Composition of floating population's residential intention by age

Figure 3. Composition of floating population's residential intention by gender

Figure 4. Composition of floating population's residential intention by marriage status

Figures 5-7 show the relations between the socio-economic status and their residential intention. The significant difference in the residential intention of floating population can be found in three variables according to the results: educational level, occupational type and characteristics of work-unit. The proportion of the "not decided" group shows very obvious difference in these variables: education and working-unit. The proportion of "not decided" gradually decreases with the rise of education level; and is relatively low in state-owned units, in terms of characteristics of work-unit.
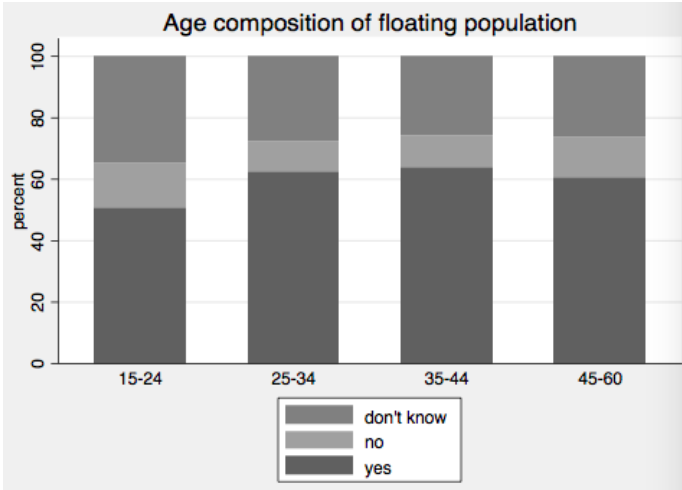
Figure 5. Composition of floating population's residential intention by education

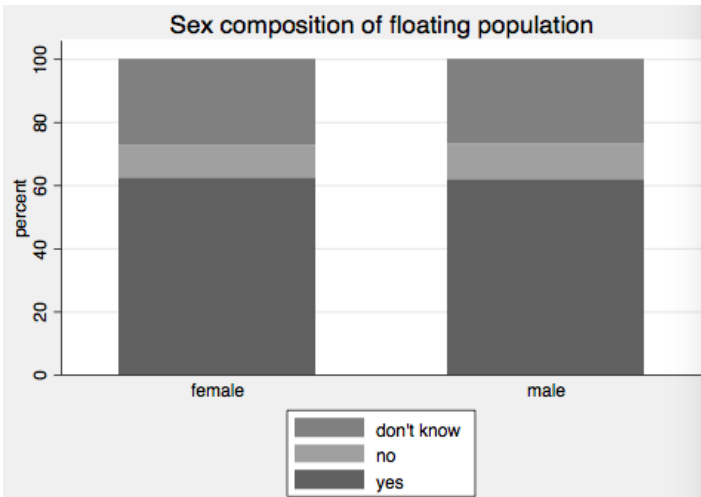**Figure 6. Composition of floating population's residential intention by occupation**

Figure 7. Composition of floating population's residential intention by work-unit

Furthermore, Figures 8-11 are about the relationship between the regional features and the residential intention of floating population. The three continuous variables are equally divided into three groups respectively in the figures, revealing that the residential intention of floating population is distributed significantly different according to the regional features. To be more specific, the proportion of "not decided" group is relatively low in midland, regions with higher GDP, higher employee average salary, and with moderate population scale, which show distinctive difference.

Figure 8. Composition of floating population's residential intention by population size

Figure 9. Composition of floating population's residential intention by GDP

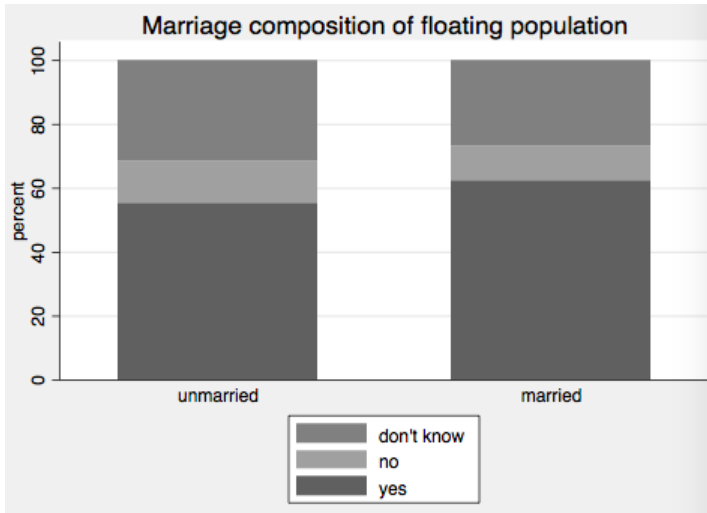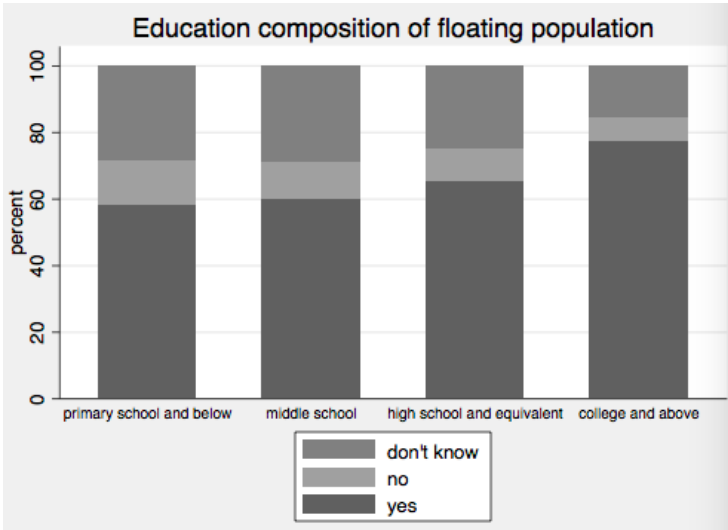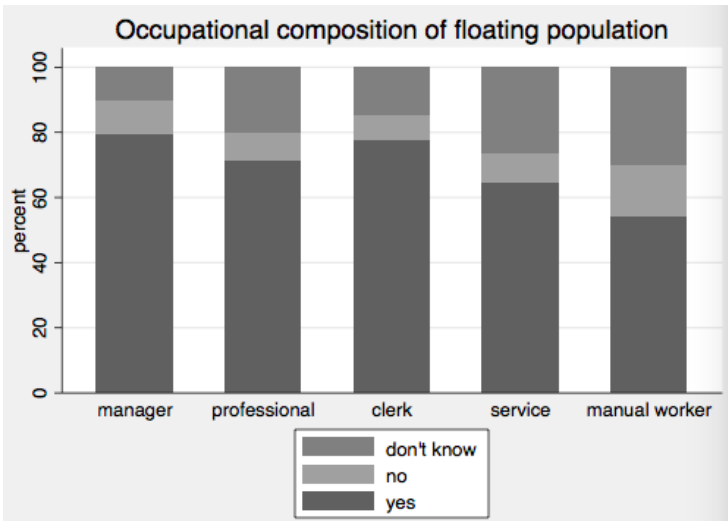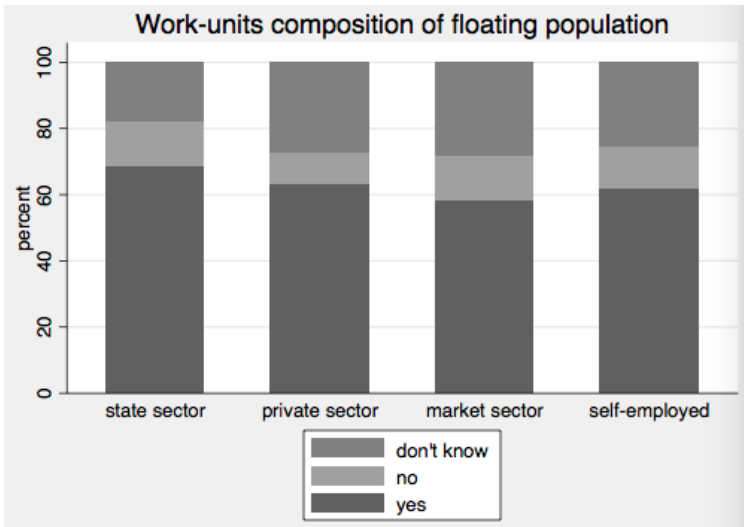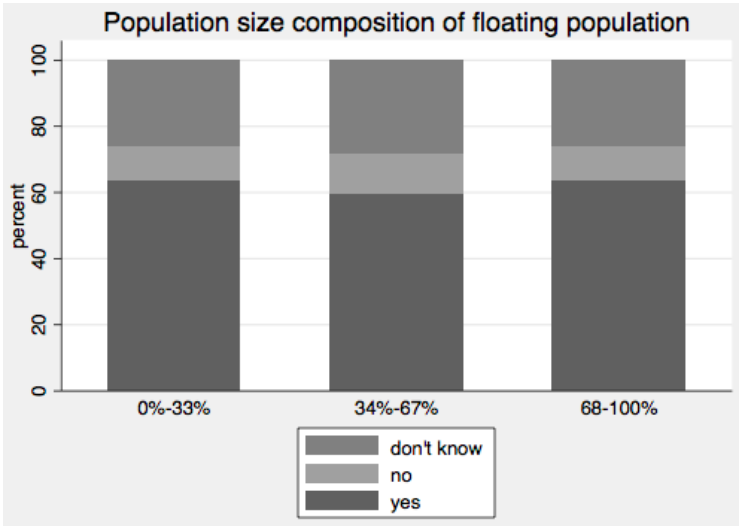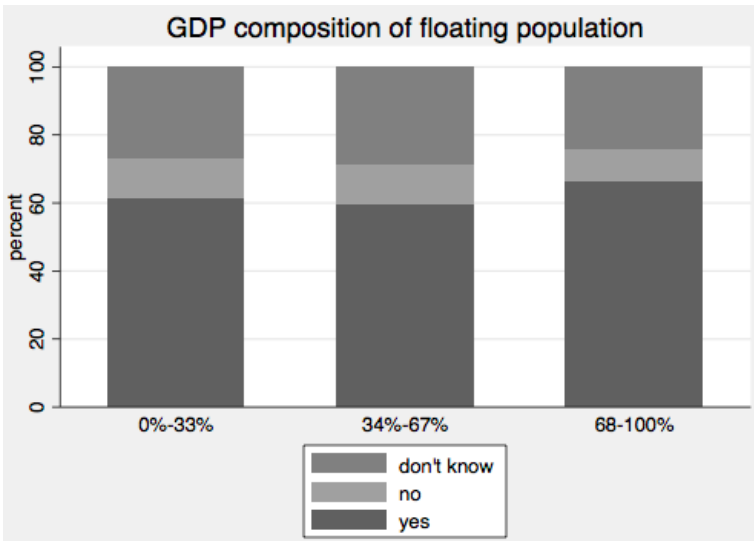**Figure 10. Composition of floating population's residential intention by average wages**
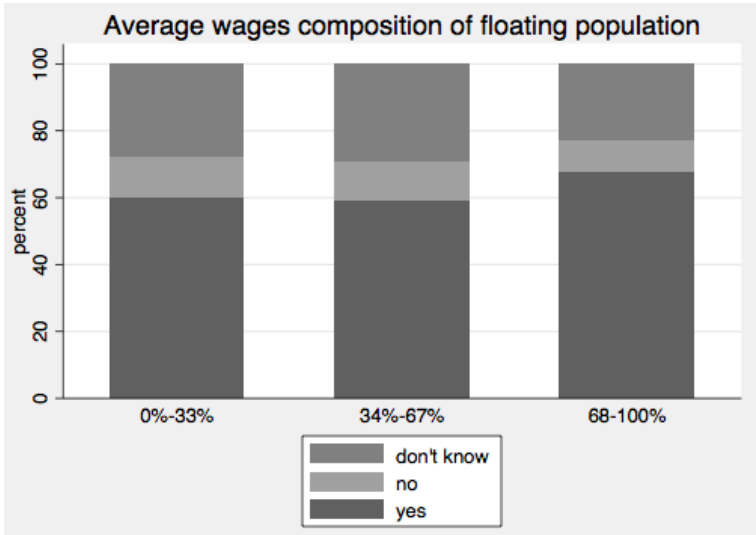
Figure 11. Composition of floating population's residential intention by hospital beds
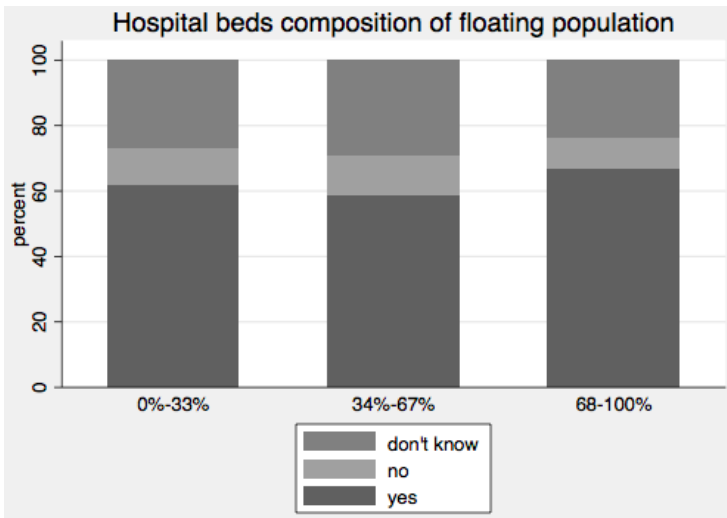
Therefore, with the descriptive analysis above, except the gender

variable, the difference of residential intention is very significant between "not decided" group and other groups in all the other variables (including individual, family structure and regional features). It means that "not decided" group changes with the change of independent variables, therefore, simply deleting or merging the "not decided" group samples may lead to the estimation bias in analysis and conclusion. And the hierarchical multinomial logit model is a better choice for the total sample.

5.2 FINDINGS OF HIERARCHICAL MULTINOMIAL LOGIT MODEL

In this hierarchical multinomial logistic model, the reference group is those with "no" intention to reside. Relevant results can be seen in table 2, among which the first column is the coefficients of comparisons between "yes" and "no", and the second column is that between "not decided" and "no". This model emphasizes the effect of the regional-level socioeconomic features on the intercept and the slopes of independent variables, such as education, marriage, income, the dummy variable that whether the individual is living with his/her spouse and children in level-1, aiming to interpret how about the effect routines of the regional-level socio-economic features on the residential intention of floating population via a series of independent variables in the individual level.

Table 2. Results for multilevel multinomial logistic model

Variables (reference group="no")		Coef.("yes")	Coef.("not decided")
Fixed effects			
Average residential intention in regional level	β_0		
intercept	γ_{00}	-10.4609 (15.9725)	-7.8919 (15.4583)
Population size	γ_{01}	0.0005 (0.0010)	0.0015 (0.0009)
Hospital beds	γ_{02}	0.0000 (0.0000)	-0.0000 (0.0000)
GDP	γ_{03}	-0.8508** (0.4317)	-0.3618 (0.4160)
msalary	γ_{04}	2.0618 (1.7513)	1.3567 (1.7048)
Slope of gender	β_1		

intercept	γ_{10}	-0.0895*** (0.0237)	0.0484* (0.0248)
Slope of age	β_2		
intercept	γ_{20}	0.0001 (0.0014)	-0.0114*** (0.0015)
Slope of education	β_3		
intercept	γ_{30}	0.0305 (0.3644)	0.1501 (0.3258)
Population size	γ_{31}	-0.0000 (0.0000)	0.0000 (0.0000)
GDP	γ_{32}	0.0181* (0.0095)	-0.0013 (0.0091)
msalary	γ_{33}	-0.0259 (0.0386)	-0.0122 (0.0365)
Slope of marriage	β_4		
intercept	γ_{40}	10.1843** (4.6576)	2.9893 (4.8565)
Population size	γ_{41}	-0.0007** (0.0003)	-0.0003 (0.0003)
Hospital beds	γ_{42}	0.0000+ (0.0000)	0.0000 (0.0000)
GDP	γ_{43}	-0.0030 (0.1136)	0.0475 (0.1158)
msalary	γ_{44}	-0.9906** (0.4559)	-0.3725 (0.4756)
Slope of income	β_5		
intercept	γ_{50}	0.1435 (1.9195)	0.3000 (1.8759)
Population size	γ_{51}	-0.0001 (0.0001)	-0.0001 (0.0001)
GDP	γ_{52}	0.1138** (0.0522)	0.0638 (0.0509)
msalary	γ_{53}	-0.1632 (0.2131)	-0.1237 (0.2090)
Slope of cocp	β_6		
intercept	γ_{60}	-7.2095*** (1.9476)	-4.5043** (1.9672)
Population size	γ_{61}	0.0005*** (0.0001)	0.0003** (0.0001)
Hospital beds	γ_{62}	-0.0000***	-0.0000

		(0.0000)	(0.0000)
GDP	γ_{63}	-0.0269 (0.0509)	-0.1486*** (0.0500)
msalary	γ_{64}	0.7978*** (0.1977)	0.6814*** (0.1989)
Slope of cochild	β_7		
intercept	γ_{70}	-0.2948 (1.6366)	2.5383 (1.7458)
Population size	γ_{71}	0.0000 (0.0001)	-0.0001 (0.0001)
Hospital beds	γ_{72}	-0.0000 (0.0000)	0.0000 (0.0000)
GDP	γ_{73}	-0.0423 (0.0411)	-0.0364 (0.0432)
msalary	γ_{74}	0.1688 (0.1688)	-0.1502 (0.1800)
Slope of manager	β_8		
intercept	γ_{80}	0.2780 (0.1738)	-0.4016* (0.2147)
Slope of professional	β_9		
intercept	γ_{90}	0.5168*** (0.0527)	0.2014*** (0.0566)
Slope of clerks	β_{10}		
intercept	γ_{100}	0.5223*** (0.0990)	0.0457 (0.1118)
Slope of service	β_{11}		
intercept	γ_{110}	0.3841*** (0.0293)	0.1977*** (0.0307)
Slope of insurance	β_{12}		
intercept	γ_{120}	-0.1856*** (0.0516)	-0.0447 (0.0544)
Slope of migrant time	β_{13}		
intercept	γ_{130}	0.4230*** (0.1420)	0.3589** (0.1523)
Population size	γ_{131}	-0.0000 (0.0000)	0.0000 (0.0000)
GDP	γ_{132}	0.0155*** (0.0045)	0.0080* (0.0048)

msalary	γ_{133}	-0.0527***	-0.0428**
		(0.0166)	(0.0178)
Slope of state	β_{14}		
intercept	γ_{140}	-0.1048**	-0.5405***
		(0.0468)	(0.0513)
Slope of private	β_{15}		
intercept	γ_{150}	-0.0927***	-0.1898***
		(0.0301)	(0.0314)
Slope of market	β_{16}		
intercept	γ_{160}	-0.0673	-0.2387***
		(0.0442)	(0.0465)
Slope of migscale	β_{17}		
intercept	γ_{170}	5.9574***	2.9447
		(1.9386)	(2.0429)
Population size	γ_{171}	-0.0004***	-0.0003**
		(0.0001)	(0.0001)
Hospital beds	γ_{172}	0.0000**	0.0000***
		(0.0000)	(0.0000)
GDP	γ_{173}	-0.1590***	-0.0866*
		(0.0433)	(0.0450)
msalary	γ_{174}	-0.2559	-0.1323
		(0.1953)	(0.2054)
Variance component			
Within-regional			
intercept	τ_{00}	7.6469***	5.6849***
Slope of education	τ_{30}	0.0028***	0.0022***
Slope of income	τ_{50}	0.1207***	0.0956***

Note: standard error in the parenthesis. *p<0.1, **p<0.05, ***p<0.01 (two-tailed tests). The sample size in level-1 is 105500, number of cities in level-2 is 304.

5.2.1 Comparison results of "yes" vs "no"

Comparing the groups between "yes" and "no" at first, we find that at the individual level, the coefficient of age is not significant, that means age does not affect residential intention of floating population. The coefficient of gender is -0.0895, and significant at .01 level, which means that men's residential intention is lower than that of women's by nearly 10% (men's

intention is 91.4% of women's). From the perspective of marriage, the intention of people in marriage is higher than that of the unmarried. Such outcomes are the effects of demographic variables. Among the social structural variables in the individual level, education and income show the significant positive effect on residential intention. For example, as years of schooling promotes by 1 year, the intention of floating population increases by 4%; as individual income increases with 1 unit, the intention of floating population increases by 24%. From such results we could see the socioeconomic characteristics in the individual level have a significant influence on residential intention.

From the perspective of occupational type, compared with manual workers, people in other occupational types have higher residential intention, yet there is no significant difference between managers and manual workers. The latter finding reveals two extreme attitudes towards residential intention. For manual workers, their residential intention is relatively lower than other occupations; for managers in the migrant workers, their residential intention is relevant to their job mobility and their higher social status leading to no ponder whether to reside in the city. However, for the middle class in the society (professionals, clerks and employees in commercial and service industry), they have higher residential intention for promoting their social status and make more efforts to achieve such goal. From the characteristics of work-units (*danwei*), people in the state-sector and private sector have lower residential intention than those in the self-employed sector. Besides, there is a negative effect of health insurance on residential intention, that is, people with a health insurance have lower intentions to reside compared with people without such insurance, which is consistent with the findings of Lin & Zhu (2016) but inconsistent with findings of Zhu (2007), Zhang et al. (2015), and Yang (2016). The negative effect of health insurance indicates that people with health insurance have the capacity to acquire some social security to some extent, which lowers their residential intention.[7]

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[7] We should further consider the source of migrant people's health insurance. So far, some people may attend the urban occupational health insurance, but it is possible that the majority of migrant people participate in the out-migrant regions (eg, the new rural cooperative medical care system, NRCMCS). Thus, for migrant people with health insurance in the out-migrant regions, they may tend to return to out-migration regions for medical convenience. Meanwhile, the difference in measurement of medical care may cause discrepancies in various studies.

For variables in the familial level, there is a positive impact of migration duration on residential intention, that is, as migration duration increases by 1 year, residential intention of floating population will increase by 12%. Residential intention of people living with their spouse will increase by 154%, far higher than that of people living without a spouse (reference group). But whether residing with children does not influence on the residential intention of floating population. From the perspective of migrant scope (whether migration is inter-provincial), the residential intention of intra-provincial floating population increases by 63% compared with that of inter-provincial floating population. Once controlled by the level-2 variables of regional level, the slope becomes steeper, which indicates a higher tendency.

We will discuss the effects of the regional-level variables on the slopes in the individual-level. If the level-2 variables have a significant impact on the slopes in level-1, we can conclude that variables in the regional-level affect the residential intention of floating population via individual and familial characteristics. More details are listed in Table 2. In a nutshell, some regional socioeconomic features of the destination exert an impact on residential intention via some individual and familial features.

From the intercept in level-1, there is only one indicator (GDP, as an indicator of economic development) in level-2 that shows a significant negative effect on the intercept. That is, as GDP increases by 1 unit, the residential intention of floating population will decrease by 58%, which means that residential intention will be lower as the economic development level increases. However, average wages of staff and workers, number of hospital beds, and population size have no significant impact on the intercept.

Secondly, there is only one indicator-GDP that has a significant effect on the slope of education. As GDP increases by 1 unit, the effect of education on the residential intention of floating population will increase by 2%. That is, regional economic development exerts distinct influence on residential intention via the mechanism of individual educational level.

Thirdly, married people's residential intention is higher than that of the unmarried (including the divorced and the widowed, besides the single), among which there is a mediation effect of social and economic features in the regional level. For example, the effect of population size in the

destination on the slope of marriage is negative, that is, there is an increase intention for the unmarried if they migrate into regions with a larger population size. As average wages of staff and workers increases by 1 unit, the slope of marriage will decrease by 62.87%, that is, there is a positive effect for the unmarried as the average wages gets larger. Yet, GDP and number of hospital beds have no significant effect on the slope of marriage.

Fourthly, there is only one indicator-GDP in level-2 that shows a significantly positive effect on the slope of income. That is, as GDP increases by one unit, migrant people's residential intention will increase by 12%.

Fifthly, all the variables in level-2 except GDP have a significant effect on the slope whether migrants are living with spouse. As population size increases, the slope also increases, which means those floating population living with a spouse have a higher tendency to reside in the destination in a big city or metropolitan. Though the number of hospital beds has a significant negative effect on the slope, the effect size is slight. Such finding indicates that as the number of hospital beds increases, the difference between two groups of floating population is faded. As average wages of staff and workers increases by 1 unit, the slope of living with a spouse will increase by 122%, yet GDP has no significant effect on the slope.

Sixthly, no variables in level-2 show a significant effect on the slope whether migrants are living with their children, which indicates that these variables have no impact on residential intention. Such finding is consistent with the result of the level-1 model.

Seventhly, level-2 variables have different effects on the slope of migration duration. That is, population size has no significant effect; GDP has a significantly positive impact; while average wages has a significant negative influence on the slope of migration duration.

Eighthly, for the slope of migration scope (intra-province vs inter-province), population size and GDP have a significantly negative effect. As GDP increases by 1 unit, the difference between intra- and inter-provincial floating population decreases by 15% and the residential intention for inter-province migrant people will be enhanced. Yet, number of hospital beds has a significantly positive influence on the slope of migration scope. That is, as the number of hospital beds increases and further the social development level elevates, the residential intention of intra-provincial floating

population will increase consequently, though effect size is relatively small.

5.2.2 Comparison results of "not decided" vs "no"

Please refer to the comparison results between the group of "not decided" and "no" in the second column of Table 2. There is a remarkable discrepancy in contrast with the comparison of "yes" and "no". At the individual level, age has a negative effect on the residential intention, which means that floating population tends not to reside in destination but not "not decided" as age increases. Gender has a positive impact on residential intention, which indicates men tend to be "not decided" which women tend not to reside. However, the effects of education and income on residential intention are not statistically significant, while the effects of occupational type and work-units type (*danwei*) are significant. Compared with the reference group of manual workers, managers incline not to reside, but for professionals and employees in commercial and service industry, they tend to be "not decided". Floating population with other work-units type (*danwei*) are more likely not to reside in destination in contrast with the self-employed. At the familial level, there is a significant negative effect of whether living with a spouse and migration duration on the residential intention, but whether living with their children and migration scope shows no significant impacts.

At the regional level, the intra-class interactions of regional level socioeconomic features on residential intention mainly embody via slopes of whether living with a spouse, migration duration and migration scope. From the perspective of family structure, population size and average wages of staff and workers have a positive effect on the slope of whether living with a spouse, so that people who live with his/her spouse tend to be "not decided" (compared with "no"); but with the increase of GDP, people who living with spouse tend not to reside in the destination ("no"). Though the effect of GDP on the slope of migration duration is positive, the effect of average wages of staff and workers on the slope of migration duration is negative. Such findings indicate that the higher GDP is conducive to the residential intention of floating population with a longer migration duration, and that the higher average wages of staff and workers is detrimental to residential intention with a longer migration duration. From the perspective of migrant scope, there is a significant impact of population size and GDP on the slope of migration scope, that is, as population size and GDP increase, intra-provincial floating population tend to be "not decided". However, the number of hospital beds is slightly conducive to promoting the residential intention of intra-province floating population as the effect size is

diminutive.

5.3 FINDINGS FROM HIERARCHICAL LOGISTIC REGRESSION MODEL

In this part, the article analyzes the residential intention of floating population with a definite residential intention ("yes" vs "no") by using multilevel logistic regression model. The results of the null model show that intra-class correlation (ICC) equals 0.1674, which is "high level of association" according to the standard of Cohen (1988). Such finding strengthens the necessity of using a hierarchical model. Please see relevant results in Table 3.

The article emphasizes the effects of level-2 variables and will not discuss the effects of independent variables in the individual level (level-1) again. Population size and average wages of staff and workers have a negative effect on the slope of marriage, so the married people tend not to reside as population size and average wages increase; however, there is no significant effect of the numbers of hospital beds. GDP exerts a positive impact on the slopes of education and income, which indicates that economic development is conducive to promote residential intention via the inter-class interaction of individual's education and income. There is a significant positive effect of population size and average wages on the slope of that whether living with spouse, yet the number of hospital beds exerts a negative impact. The regional level features have no effect on the slope of whether living with their children. From the perspective of migration duration, GDP has a significant effect on that slope, but average wages has a negative effect. As for migration scope, population size and GDP are detrimental for intra-provincial floating population, but the number of hospital beds is conducive to promote the residential intention of intra-provincial floating population.

Such findings illustrate that the estimated results are almost consistent at the significant level and the direction, though there are some differences in the estimators between the two statistical models.

Table 3. Results for multilevel multinomial logistic model

Variables (reference group="no")		Coef.("yes")
Fixed effects		
Average residential intention in regional level	β_0	
intercept	γ_{00}	-10.3325 (15.2661)

Population size	γ_{01}	0.0008
		(0.0009)
Hospital beds	γ_{02}	-0.0000
		(0.0000)
GDP	γ_{03}	-0.9618**
		(0.4113)
msalary	γ_{04}	2.2134
		(1.6822)
Slope of gender	β_1	
intercept	γ_{10}	-0.0936***
		(0.0243)
Slope of age	β_2	
intercept	γ_{20}	0.0006
		(0.0015)
Slope of education	β_3	
intercept	γ_{30}	0.2556
		(0.3110)
Population size	γ_{31}	-0.0000
		(0.0000)
GDP	γ_{32}	0.0179**
		(0.0087)
msalary	γ_{33}	-0.0463
		(0.0350)
Slope of marriage	β_4	
intercept	γ_{40}	9.9800**
		(4.7570)
Population size	γ_{41}	-0.0006*
		(0.0003)
Hospital beds	γ_{42}	-0.0000
		(0.0000)
GDP	γ_{43}	0.0317
		(0.1152)
msalary	γ_{44}	-1.0248**
		(0.4646)
Slope of income	β_5	
intercept	γ_{50}	-0.0839
		(1.8225)
Population size	γ_{51}	-0.0001

		(0.0001)
GDP	γ_{52}	0.1207** (0.0493)
msalary	γ_{53}	-0.1526 (0.2032)
Slope of cocp	β_6	
intercept	γ_{60}	-7.3341*** (1.9893)
Population size	γ_{61}	0.0005*** (0.0001)
Hospital beds	γ_{62}	-0.0000*** (0.0000)
GDP	γ_{63}	-0.0449 (0.0519)
msalary	γ_{64}	0.8370*** (0.2026)
Slope of cochild	β_7	
intercept	γ_{70}	0.2199 (1.6612)
Population size	γ_{71}	0.0000 (0.0001)
Hospital beds	γ_{72}	-0.0000 (0.0000)
GDP	γ_{73}	-0.0360 (0.0418)
msalary	γ_{74}	0.1121 (0.1713)
Slope of manager	β_8	
intercept	γ_{80}	0.2584 (0.1751)
Slope of professional	β_9	
intercept	γ_{90}	0.5301*** (0.0541)
Slope of clerks	β_{10}	
intercept	γ_{100}	0.5429*** (0.1007)
Slope of service	β_{11}	
intercept	γ_{110}	0.3881*** (0.0300)
Slope of insurance	β_{12}	
intercept	γ_{120}	-0.1982*** (0.0527)

Slope of migrant time	β_{13}	
intercept	γ_{130}	0.4272*** (0.1452)
Population size	γ_{131}	-0.0000 (0.0000)
GDP	γ_{132}	0.0161*** (0.0046)
msalary	γ_{133}	-0.0537*** (0.0170)
Slope of state	β_{14}	
intercept	γ_{140}	-0.0908* (0.0483)
Slope of private	β_{15}	
intercept	γ_{150}	-0.1048*** (0.0309)
Slope of market	β_{16}	
intercept	γ_{160}	-0.0644 (0.0454)
Slope of migscale	β_{17}	
intercept	γ_{170}	4.7006** (2.0006)
Population size	γ_{171}	-0.0004*** (0.0001)
Hospital beds	γ_{172}	0.0000** (0.0000)
GDP	γ_{173}	-0.1721*** (0.0046)
msalary	γ_{174}	-0.1215 (0.2015)
Variance component		
Within-regional		
intercept	τ_{00}	5.7954***
Slope of education	τ_{30}	0.0018***
Slope of income	τ_{50}	0.0906***

Note: standard error in the parenthesis. *p<0.1, **p<0.05, ***p<0.01 (two-tailed tests). The sample size in level-1 is 77111, number of cities in level-2 is 304.

VI. CONCLUSION AND DISCUSSION

This article, after systematically reviewing the literatures, discusses the effect of the regional socioeconomic features on the residential intention of floating population, by using hierarchical models, based on the 2015 "Floating Population Dynamic Monitoring Survey" and other data of the relevant statistical yearbook.

The analytic findings of the article is suggestive but different from the informed researches, for instance: the fact that age does not significantly influence individual's residential intention supports the conclusion of Fan (2011); the residential intention of intra-provincial floating population is higher than that of inter-provincial floating population, which are consistent with the findings by Zhu & Chen (2010), and Hu et al. (2011); what's more, gender and marriage are of the same case. But, medical insurance's influence on residential intention is same as the findings of Lin & Zhu (2016), but different from that of Zhu (2007), Zhang et al. (2015), and Yang (2016). These results at the individual level have proved and extended the recognitions with the influential factors of the residential intention of floating population.

But this article puts more emphasis on how regional features of the destination influence the residential intention of floating population, and we can draw some conclusions as follows, combining research hypothesis and analytic results:

First, generally speaking, regional socioeconomic features influence individual's residential intention via the slopes of individual or family-level variables. For example, GDP and employee's average income (economic development indices) play a significant role in the residential intention through individual and family variables like education, income, or whether living together with spouses.

Second, viewed from the proposed hypothesis, the majority of them have not been tested or verified: (1) The higher level of regional economic development does not show a stronger attraction for the residential intention of floating population. (2) The increase in income per capita, represented by employee's average wage, shows negative impact on migration duration, while the residential intention of floating population can be promoted by the variable of whether they can live together with their spouses. In a sense, regional capita income can promote and strengthen residential intention

through family features, but at the same time, it can also weaken residential intention through individual features. (3) The social development level, represented by hospital beds number, does not promote the residential intention, except in the variable of whether living with spouses.

Last, just as the income variable shows, the influence of different aspects in regional social and economic development level on the residential intention of floating population is fulfilled by different means.

The findings of this article powerfully suggest that when discussing the influential factors of the residential intention of floating population, the regional features of the origin and destination place should not be ignored, especially that social and economic features of the destination has significant effect on the residential intention，when controlling the individual and family factors. The influence that regional social and economic features of the destination has on the residential intention of floating population changes with the change of specific economic and social indexes; especially, this article points out that the rise of GDP in destination does not necessarily promote the residential intention of floating population; on the contrary, the regional employee's average salary in destination take effects through family features. This shows that paying too much attention to the rise of economic growth will not attract floating population to settle down, whereas, only when the outcome of economic development is shared by the public (shown as the increase of employee's average salary) and social security is becoming more sound and healthy, the attraction of the destination turns higher to floating population. In conclusion, these findings demonstrate that the residential intention of floating population is a rational decision made by individuals and families based on the interaction of socio-economic development level or features and the individual/ family characteristics.

The above research results have essential policy revelation in social management and service provision for floating population. We should face up to the contradiction between the individual residential intention of floating population and the reform of household registration system, and appropriately solve the problem by guiding orderly flow (direction and size) of rural-urban floating population and reasonable distribution in city system with various scales.

Second, based on the fact that regional social and economic features of the destination have great influence on the residential intention of floating population, different types of cities can adopt different reforming method

and contents of household registration system and relevant social policies according to the residential intention of floating population and the local socioeconomic development level. The research results above show that the regulating effect of regional social development level is ineffective, on the relationship between all level-1 variables and the residential intention of floating population, which reflects from another side that promoting the economic earning is still the most important purpose of the floating population in China. The important starting point of a social policy is how to promote the social integration level and strengthen the residential intention of floating population, by formulating the governmental inclusive policy measures to improve their income, rather than by simply speeding up economic development speed or enlarging the total regional economic volume.

All in all, fundamentally, the residential intention of floating population is a rational decision made by individuals and families based on the interaction between regional socio-economic development level and features and individual/family characteristics, which does not only point out the importance of the socio-economic features from theoretical research angle, but also provide theoretical basis for relevant policy making.

Of course, the conclusions are not final and may be some questionable, especially about the variables. For example, the population size of the destination, instead of the structural city grading, is selected in the model, while the area differences (especially the three area belt in China: the east, the middle, and the west) are not considered in the models. More importantly, due to the limitation of the data source, this article does not include any regional feature of the origin, and the differences of the features between the origin and the destination which could be corresponding to the relevant theories. We welcome future research that evaluate the findings and conclusions empirically.

VII. REFERENCE

Cao, G., Li, M., Ma, Y., & Tao, R. (2015). Self-employment and intention of permanent urban settlement: Evidence from a survey of migrants in China's four major urbanising areas. *Urban Studies*, 52(4), 639–664.

Castles, S., Haas, H. D., & Miller, M. J. (2014). *The age of migration: international population movements in the modern world*. Palgrave Macmillan.

Chen, S., & Liu, Z. (2016). What determines the settlement intention of rural migrants in China? Economic incentives versus sociocultural conditions. *Habitat International*, 58, 42–50.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences. 2nd ed*. L. Erlbaum Associates.

Dorothy J. Solinger. (1999). Contesting Citizenship in Urban China: Peasant Migrants, the State, and the Logic of the Market. University of California Press.

Fan, C. C. (2011). Settlement Intention and Split Households: Findings from a Survey of Migrants in Beijing's Urban Villages. *China Review*, 11(2), 11–41.

Hao, P., & Tang, S. (2015). Floating or settling down: the effect of rural landholdings on the settlement intention of rural migrants in urban China. *Environment and Planning A*, 47(9), 1979–1999.

He, C., Chen, T., Mao, X., & Zhou, Y. (2016). Economic transition, urbanization and population redistribution in China. *Habitat International*, 51, 39–47.

Hu, F., Xu, Z., & Chen, Y. (2011). Circular migration, or permanent stay? Evidence from China's rural–urban migration. *China Economic Review*, 22(1), 64–74.

Huang, X., Dijst, M., Weesep, J. V., Jiao, Y., & Sun, Y. (2017a). Residential choice among rural–urban migrants after hukou reform: evidence from Suzhou, China. *Population Space & Place, 23*(4), e2035.

Huang, Y., Guo, F., & Cheng, Z. (2017b). Market mechanisms and migrant settlement intentions in urban china. *Asian Population Studies,* (3), 1-21.

Hugo, G. J. (1978). *Population mobility in West Java*. Gadjah Mada University Press.

Hugo, G. J. (1982). Circular migration in Indonesia. *Population & Development Review, 8*(1), 59-83.

Jensen, P., & Pedersen, P. J. (2007). To stay or not to stay? out-migration of immigrants from Denmark. *International Migration, 45*(5), 87-113.

Lewis, A. (1954). Economic Development with Unlimited Supply of Labor. *The Manchester School*, 22(2), 139-191.

Liu, Z., Wang, Y., & Chen, S. (2017). Does formal housing encourage settlement intention of rural migrants in Chinese cities? A structural equation model analysis. *Urban Studies*, 1–17.

Massey, D. S. (1987). Understanding Mexican migration to the united states. *American Journal of Sociology, 92*(6), 1372-1403.

Massey, D. S., Arango, J., Hugo, G., Kouaouci, A., Pellegrino, A., & Taylor, J. E. (1993). Theories of international migration: a review and appraisal. *Population & Development Review, 19*(3), 431-466.

Mohabir, N., Jiang, Y., & Ma, R. (2017). Chinese floating migrants: Rural-urban migrant labourers' intentions to stay or return. *Habitat International*, 60, 101–110.

National Health and Family Planning Commission, PRC. (2015). Report on China's migrant population development. Beijing: China Population Publishing House.

Piore, M.J. (1979). *Birds of passage*. Cambridge and New York: Cambridge University Press.

Stark, O. (1991). *The migration of labor*. Cambridge: Basil Blackwell.

Stewart, J. Q. (1941). An inverse distance variation for certain social influences. *Science, 93*(2404), 89-90.

Tang, S., & Feng, J. (2015). Cohort differences in the urban settlement intentions of rural migrants: A case study in Jiangsu Province, China. *Habitat International*, 49, 357–365.

Tan, S., Li, Y., Song, Y., Luo, X., Zhou, M., Zhang, L., & Kuang, B. (2017). Influence factors on settlement intention for floating population in urban area: a China study. *Quality & Quantity*, 51(1), 147–176.

Wang, W., & Fan, C. (2006). Success or failure: Selectivity and reasons of return migration in Sichuan and Anhui, China. *Environment and Planning A*, 38, 939–958.

White, M. J. (2016). *International Handbook of Migration and Population Distribution*. New York: Springer.

Wu, X., & Treiman, D. J. (2004). The household registration system and social stratification in China: 1955–1996. *Demography, 41*(2), 363-384.

Yang, C., Xu, W., Liu, Y., Ning, Y., & Klein, K. K. (2016). Staying in the Countryside or Moving to the City: The Determinants of Villagers' Urban Settlement Intentions in China. *China Review*, 16(3), 41–68.

Yue, Z., Li, S., Feldman, M. W., & Du, H. (2010). Floating choices: a generational perspective on intentions of rural-urban migrants in China. *Environment and Planning A*, 42(3), 545–562.

Zelinsky, W. (1971). The hypothesis of the mobility transition. *Geographical Review*, 61(2), 219-259.

Zhao, Y. (2002). Causes and consequences of return migration: recent evidence from China. *Journal of Comparative Economics*, 30(2), 376–394.

Zhu, Y. (2003). The floating population's household strategies and the role of migration in China's regional development and integration. *International Journal of Population Geography*, 9(6), 485–502.

Zhu, Y. (2007). China's floating population and their settlement intention in the cities: beyond the hukou reform. *Habitat International*, 31(1), 65–76.

Zhu, Y., & Chen, W. (2010). The settlement intention of China's floating population in the cities: recent changes and multifaceted individual-level determinants. *Population, Space and Place*, 16(4), 253–267.

Zipf, G. K. (1946). The P_1P_2 / D hypothesis: on the intercity movement of persons. *American Sociological Review, 11*(6), 677-686.

Cai, H., & Wang, J. (2007). A study on migrant workers' permanent migration intentions. Sociological Studies, (6), 86-113. [in Chinese]

Chen, W., & Zhu, Y. (2008). Changes and internal differentiation of floating population's settlement intention: evidence from four cities in Fujian Province. South China Population, 23(2), 57–64. [in Chinese]

Chen, Y., & Zhang, Y. (2015). The inequality effect and social integration in urbanization. Social Sciences in China, (6), 78–95. [in Chinese]

Guo, Y., Zhang, L., & Liu, R. (2017). The influence of floating population's employment status and discrimination perception on settlement intention: an analysis based on dynamic monitoring data of national floating population in 2013. Journal of Beijing Jiaotong University (Social Sciences Edition), 16(1), 55–62. [in Chinese]

Hu, C., Zhu, Y., Lin, L., & Wang, W. (2011). Analysis on floating population's hukou transfer intention and its influencing factors: insights from a survey in Fujian Province. Population and Development, 17(3), 2–10. [in Chinese]

Li, Z. (2014). The study of new generation migrant workers' settlement intention from the perspective of social integration theory. Journal of Social Development, (3), 110–117. [in Chinese]

Liang, T. (2017). Adaptation change: an empirical research on settlement intention and its policy implications of the new generation migrant population. China Population Resources and Environment, 27(2), 151–159. [in Chinese]

Lin, L., & Zhu, Y. (2016). Spatial variation and its determinants of migrants' hukou transfer intention of China's prefecture- and provincial-level cities: Evidence from the 2012 national migrant population dynamic monitoring survey. Acta Geographica Sinica, 71(10), 1696–1709. [in Chinese]

Ma, X., Duan, C., & Guo, J. (2014). A comparative study on four types of floating population. Chinese Journal of Population Science, (5), 36-46. [in Chinese]

Meng, Z., & Wu, R. (2011). A research on living intentions of floating population. Population and Development, 17(3), 11–18. [in Chinese]

Song, Y., & Tao, Y. (2012). Assimilation and acceptance: an empirical study on migrants' social assimilation from interactive perspective. Population Research, 36(3), 38-49. [in Chinese]

Sun, Z. (2015). Settlement intention of migrant workers in big cities and development path of China's new-type urbanization. Population Research, 39(5), 72–86. [in Chinese]

Wang, P. (2015). The study of inter-provincial floating population's long-term residence intention in Xinjiang from the perspective of social integration theory. Population and Development, 21(2), 66–71. [in Chinese]

Wang, W., Chen, J., & Ai, W. (2016). The settlement willingness of new generation of migrant workers in the third- and fourth-tier cities as well as its influential elements: base on the data from dynamic monitoring of the floating population in Yangtze River Delta. Journal of East China Normal University (Philosophy and Social Sciences), (4), 30–37. [in Chinese]

Wang, Y. (2013). Settlement intention of rural migrants in Chinese cities: findings for a twelve-city migrant survey. Population Research, 37(4), 19–32. [in Chinese]

Wei, Z. (2013). A region-specific comparative study of factors influencing the residing preference among migrant population in different areas: based on the dynamic monitoring & survey data on the migrant population in five cities of China. Population & Economics, (4), 12–20. [in Chinese]

Xie, Y., Miao, Y., & Cao, G. (2014). The intra-generation diversity analysis of peasant-workers for employment spatial selection and desire of staying in cities. Urban Studies, 21(4), 92–97. [in Chinese]

Xue, Y. (2016). A research on the factors affecting social integration of floating population based on hierarchical linear model. Population & Economics, (3), 62-72. [in Chinese]

Yang, D., & Wang, X. (2016). The study on urban residence willingness of post-90s floating youth. Youth Studies, (3), 39–48. [in Chinese]

Yang, D. (2016). A comparative study on settlement intention of the floating population in northeast China. Population Journal, 38(5), 34–44. [in Chinese]

Yang, J. (2015). Research on the assimilation of the floating population in China. Social Sciences in China, (02), 61-79. [in Chinese]

Yang, Z. & Luo, Y. (2015). The study on rural-urban migrant' settlement intention in Beijing. Population and Society, 31(1), 69–80. [in Chinese, the article is translated by the author]

Ye, P. (2011). Residential preference of migrant workers: an analysis of the empirical survey data from seven provinces/districts. Chinese Journal of Sociology, 31(2), 153–169. [in Chinese]

Zhang, H., Cao Y., & Wang, M. (2015). The influence of social integration on the migrants' willingness of long-term residence in Guangzhou city. Northwest Population Journal, 36(1), 7–11. [in Chinese]

Zhang, P., Hao, Y. & Chen, W. (2014). Happiness, social integration and migration decision. Economic Review, (1), 58–69. [in Chinese]

Zhu, Y. (2004). Overseas research on non-permanent migration and its implications for the issues of floating population in China. Population Research, 28(3), 52-59. [in Chinese]

Zhu, Y., Yu, L., Lin, L., & Dong, J. (2012). The continuity and change in the urban settlement intention between the woe generation migrants——based on a survey in Fujian Province. Human Geography, 27(3), 1–6. [in Chinese]

Zhu, Y., Lin, L., & Ke, W. (2016). Trends in internal migration and mobility: International experiences and their implications for China. Population Research, 40(5), 50-69. [in Chinese]