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ORIGINAL RESEARCH

Understanding the Gap Between De Facto and De Jure Urbanization in China: A Perspective from Rural Migrants' Settlement Intention

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Abstract

This paper tries to analyze the determinants and driving mechanisms of both settlement intention and *hukou* transfer intention for rural migrants in Chinese cities, which can help to understand the gap between de facto and de jure urbanization in China. Based on China Labor-force Dynamics Survey (CLDS) in 2014, 1145 samples with their settlement intention, *hukou* transfer intention, individual demographic characteristics, urban working and living conditions, rural resources and attachment, and geographic characteristics were collected. It suggested that compared with settlement intention, the rural migrants' *hukou* transfer intention were much weaker. The rural migrants preferred small and medium cities for urban settlement but large and megacities for urban *hukou* conversion. By logistic regression analysis, a set of complex determinants of settlement intention was identified, including age, education attainment, marital status and spouse living together, as well as the trade-off between urban working and living conditions in the current host cities and rural landholdings and attachment in the hometown. In contrast, the *hukou* transfer intention was mainly determined by age, personal income, rural landholdings and the size of current host city, which highlighted the personal citizenization capacity and the trade-off between benefits related to urban and rural *hukou*. Moreover, by examining the characteristics of four sub-types of rural migrants with different settlement intention and *hukou* transfer intention, it was found that the rural migrants who intended to settle down and convert *hukou* at the same time usually had high personal citizenization capacity and preferred megacities; those who intended to settle down but rejected *hukou* conversion usually had high citizenization capacity and low migration cost; those who intended to convert *hukou* but rejected settling down in the cites preferred megacities instead of small cities; those who did not intend to settle down or convert *hukou* at all usually had low citizenization capacity and high migration cost. Based on these findings, it is recommended to promote the complete citizenization of rural migrants by improving their livelihood and well-being in the cities through kinds of policy reform about *hukou*, land, and social insurance.

Extended author information available on the last page of the article

Keywords Urbanization · Settlement intention · *Hukou* transfer intention · Rural migrants · China

Introduction

Since economic reform in the late 1970s, China has experienced a rapid urbanization process with enormous flow of rural population to the cities (Zhang and Song 2003). According to National Bureau of Statistics of China (2015a), the proportion of its urban resident population has drastically increased from 17.9% in 1978 to 54.8% in 2014. Based on China's large amount of remaining rural population and the promotion of agricultural machanization, it is predicted that more and more young and educated rural labor force will migrate to the cities and the urbanization level will continue to increase (Long et al. 2010). However, among its current 749 million urban resident (de facto) population, only 65.5% are urban household (de jure) population with non-agricultural *hukou*, while the others are rural migrants with agricultural *hukou* (Cheng and Selden 1994; National Bureau of Statistics of China 2015b). As shown in Fig. 1, the gap between the rates of urbanization based on the proportion of urban de facto population and urban de jure population keeps increasing and reaches 18.9% in 2014. Due to the long-term urban–rural segmentation of *hukou* system, the rural migrants without local urban *hukou* have been excluded from basic public services and social security in the cities, such as education, healthcare, public housing, and social insurance. Some scholars argue that China is at a stage of "semi-urbanization" and the rural migrants are in a transitional

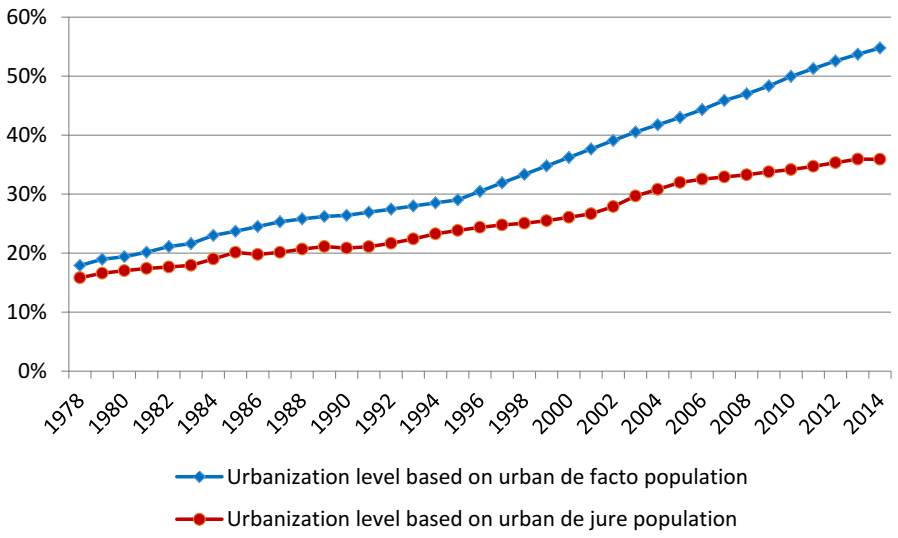

Fig. 1 Urbanization level in China based on the proportions of urban de facto population and urban de jure population (1978–2014). *Source* Department of Population and Employment Statistics, National Bureau of Statistics of China (1990-2015)

state between returning to rural areas and complete citizenization (Liu et al. 2016a; Ouyang et al. 2017).

As China enters a transformational period of integrated urban–rural socio-economic development (Liu et al. 2014), the Chinese central government proposed *National New Urbanization Plan (2014–2020)* in 2014, aiming to realize about 100 million rural migrants settling in the cities and reduce the gap between de facto and de jure urbanization by 2% until 2020 (Chen et al. 2016). This people-oriented urbanization strategy is different from traditional economic focus and land development strategy, which pays more attention to the welfare and well-being of rural migrants (Bai et al. 2014). In July 2014, the State Council further issued a policy to abolish the urban–rural *hukou* division and set up a unified urban–rural residental registration system by 2020. However, some scholars have pointed out that the move to eliminate the difference between urban and rural *hukou* has been driven by municipal authorities (rather than national authorities) and that the main goal of the reforms is to obtain the village land on the outskirts of cities for urban expansion, rather than concerns about migrants' welfare. By eliminating the difference between local rural and local urban *hukou*, cities do not have to provide any additional benefits to long distance migrants, but only to villagers on the urban outskirts, who are encouraged to give up their land to developers (Andreas and Zhan 2015). Despite all the reform in *hukou* system, it is questionable whether all the rural migrants will settle in the cities and transfer their *hukou* to the cities, because the respective advantages associated with urban and rural *hukou* will likely continue to exist in at least the medium term (Zhang et al. 2016). Thus, examining the intention of rural migrants to settle in the cities and transfer *hukou* to the cities is an important perspective to understand and promote the urbanization in China.

There is growing literature about the intention of rural migrants to settle down in the cities of China (Chen and Liu 2016; Fan 2011; Hao and Tang 2015; Tang and Feng 2015; Tang et al. 2016; Zhu 2007; Zhu and Chen 2010), which found that both the economic incentives and socio-cultural conditions are important influencing factors of settlement intention (Chen and Liu 2016). However, most of these studies focus on the urban settlement intention of rural migrants, whereas the studies about their *hukou* transfer intention are limited. Indeed, in the context of China, the complete citizenization of rural migrants requires them to not only permanently settle in the cities but also transfer their rural agricultural *hukou* to urban non-agricultural *hukou* in order to ensure their social services in the cities. Thus, exploring the determinants of both settlement intention and *hukou* transfer intention of rural migrants at current stage is equally important and highly needed in China, which can help to explain the "semi-urbanization" phenomenon. Meanwhile, since the determinants are various and complex, it is needed to establish a comprehensive conceptual framework, which may provide a valuable reference to the studies not only in China but also in other developing countries. Furthermore, based on the different determinants of settlement intention and *hukou* transfer intention for rural migrants, it is also necessary to stress the comparison between the two kinds of settlement intention and the implications of their different driving mechanisms.

This study tries to investigate the different determinants and driving mechanisms of settlement intention and *hukou* transfer intention for rural migrants in China.

Based on review about existing theoretical and empirical studies, a comprehensive conceptual framework is established for investigating the determinants. Then, the sample and binary logistic regression analysis method is introduced. Following a detailed description of settlement intention and *hukou* transfer intention of the sample, empirical results of the determinants of both settlement intention and *hukou* transfer intention as well as four sub-types of settlement and *hukou* transfer intention are presented, respectively. Based on the results, the different driving mechanisms of settlement intention and *hukou* transfer intention are compared and analyzed. The last section summarizes the main findings of this research and makes some political implications for reducing "semi-urbanization" and developing people-oriented urbanization in China.

Conceptual Framework

Human migration has attracted great attention from international scholars, and the determinants and driving mechanisms of urban settlement is one of the most significant theoretical issues. Based on neoclassical economics, Ravenstein's (1885, 1889) "laws of migration" firstly emphasized the role of economic factors and geographical distance in determining the individual choice of settlement. Following the law, "push–pull" hypothesis further combined micro individual rational choice with macro rural–urban development inequalities (Mabogunje 1970). In this hypothesis, a set of push factors in the origin region, including poverty, unemployment, landlessness, rapid population growth, low social status, and poor marriage prospects, and pull factors in the destination region, including better income and job prospects, better education and welfare systems, good environmental and living conditions were considered (King 2012). Some scholars also argued that personal factors, such as economic status, life-stage and personality, also played a role in settlement decision since different people may act differently to these push and pull factors (Lee 1966). Meanwhile, "intervening obstacles" cannot be neglected when determining the settlement, such as physical distance, cultural barriers, and institutional restrictions. Furthermore, the "new economics" of labor migration theory argued that the families and households also determined the individual settlement intention (Stark and Bloom 1985). In sum, to understand the urban settlement intention of rural migrants, multiple factors need to be considered, including the personal and household characteristics, origin push and destination pull factors, as well as geographical characteristics.

In China, besides the above determinants proposed by international studies, *hukou* system is also considered as a major factor that influences urban settlement of rural migrants. It was firstly set up to prohibit the migration of rural people to urban areas. Since the economic reform in 1978, the importance of *hukou* system in determining the urban settlement of rural migrants became decreasing (Zhu 2007), because the employment opportunities in the urban areas were no longer limited to the urban household population. Accordingly, other determinants instead of *hukou* became more important when analyzing the determinants of urban settlement of rural migrants. Nevertheless, urban and rural *hukou* is still associated with welfare or

property benefits in the urban and rural areas, respectively. Currently, rural migrants can choose to permanently settle down in the cities without transferring their *hukou* status, which leads to the "semi-urbanization" phenomenon in China. To understand the *hukou* transfer intention, the key is to understand the trade-off between benefits attached to urban and rural *hukou* (Chen and Fan 2016). For instance, transferring *hukou* from rural to urban may enable the rural migrants to reside in the cities with rights to urban welfare and amenities, but sacrifice their rural landholdings in the rural areas (Hao and Tang 2015). Thus, the differences between urban settlement intention and *hukou* transfer intention needs further empirical checking, especially for exploring their different driving mechanisms.

Recently, a growing number of studies have explored urban settlement intention for rural migrants in China, following the perspective of multiple disciplines. For instance, the economics emphasizes the maximization of individual utility and considers citizenization as a choice to maximize income opportunities (Hoddinott 1994). The sociology emphasizes the social attachment and integration to the origin and destination of the migration (Korinek et al. 2005). The political science emphasizes the institutional factors such as the *hukou* system and land management policy in the context of China (Hao and Tang 2015). However, compared with settlement intention, the studies about *hukou* transfer intention are limited. Indeed, whether the rural migrants are willing to stay in the cities are greatly different from their willingness to transfer to urban *hukou*. The literature suggests that the overall settlement intention of rural migrants in China is between 35% and 60%, but their *hukou* transfer intention is much lower. For instance, the national survey for floating population in 2012 suggested that the urban settlement intention of rural migrants was 60.2% and their *hukou* transfer intention was 50.0% (Tan et al. 2015). Most of these studies are based on surveys in cities and provinces of the coastal developed region with large number of rural migrants, such as Beijing (Fan 2011), Shenzhen (Yue et al. 2010), Nanjing (Tang et al. 2016), Fujian Province (Zhu and Chen 2010), and Jiangsu Province (Hao and Tang 2015; Tang and Feng 2015). As the number of rural migrants grows rapidly in other regions of China, there are also a few studies conducted at the national level using the 2009 twelve-city migrant survey (Cao et al. 2015; Chen and Liu 2016; Liu et al. 2016b) and National Dynamic Monitoring of the Floating Population surveys (Guo 2016; Tan et al. 2015). Since China is a huge country with various socio-economic factors in different regions, more national-wide studies are needed to be conducted. Furthermore, what contributes to the difference between the driving mechanisms of the two kinds of urban settlement intention, i.e., settlement intention and *hukou* transfer intention, remains unclear, which requires further investigation.

Based on these theories, there are numerous empirical studies based on a complex set of factors including economic, social, institutional, and individual variables (Fan 2011). Although Tan et al. (2015) found out that the key determinants of *hukou* transfer intention is consistent with the determinants of settlement intention, some vital factors that influence *hukou* transfer intention were neglected in this study, such as rural landholdings (Hao and Tang 2015). This study tries to establish a conceptual framework drawing upon the related theoretical and empirical studies presented in Table 1. The determinants can be divided into four categories (Fig. 2).

Table 1 Selected studies about the determinants of settlement intention and *hukou* transfer intention for rural migrants in China

Study	Sample	Settlement intention/*hukou* transfer intention	Significant determinants
Zhu and Chen (2010)	600 respondents from 2006 survey in six cities of Fujian Province	Settlement intention: yes (57.5%); no (40.2%); undecided (2.3%)	Gender; age; marital status; educational attainment; occupation; working contract; household monthly income; proportion of family members at the destination cities; housing condition in the destination cities; *hukou* status; place of origin; place of destination
Yue et al. (2010)	1598 respondents from 2005 survey of rural–urban migrants in Shenzhen	Settlement intention: yes (41.5%); no, return to farm (29.9%); no, return to non-agricultural job (28.6%)	Generation; gender; marital status; educational attainment; dialect proficiency; initial migration motives; spouse at hometown; parents' health status; occupation; housing condition in the destination cities; place of origin
Fan (2011)	888 respondents from 2008 Beijing Urban Village Survey	Settlement intention: yes (38.2%); no (45.2%); undecided (16.6%)	Migration experience; household arrangement; willing to participate in training; learning from work; income difference; felt looked down; network in community; interaction with villagers.
Hao and Tang (2015)	7151 respondents from 2010 migrant survey in Jiangsu Province	*Hukou* transfer intention in different scenarios regarding to rural landholdings	Marital status; education; occupation; job duration; housing condition; farmland size; rural housing land size; level of urban destination; region of origin
Tang and Feng (2015)	7151 respondents from 2010 migrant survey in Jiangsu Province	Settlement intention: yes (54.7%), no (45.3%) for young generation; yes (47.1%), no (52.9%) for older generation	Generation; gender; age; Marital status; educational attainment; occupation; work duration; housing condition; old age insurance; level of urban destination; location of destination

Table 1 (continued)

Study	Sample	Settlement intention/*hukou* transfer intention	Significant determinants
Tan et al. (2015)	156,705 respondents from a national survey for floating population in 2012	Settlement intention: yes (60.2%), no (12.4%), undecided (27.4%) *Hukou* transfer intention: yes (50.0%), not (24.3%), undecided (25.6%)	Gender; age; marital status; educational attainment; duration of residence; medical insurance status; relative income level in comparison with local residents; industry; employment unit; temporary residence permits; housing condition, participation in community activities; participation in elections; participation in public service activities; interpersonal status; attitude of the destination; concern about the destination; happiness; inter-provincial migration; region of origin, region of destination
Cao et al. (2015)	1947 respondents from 2009 twelve-city migrant survey	Settlement intention: yes (51.74%); no (48.26%)	Self-employment; gender; Age; marital status; educational attainment; migrate within hometown province; communist party member
Chen and Liu (2016)	1953 respondents from 2009 twelve-city migrant survey	Settlement intention: yes (54.56%); no (45.44%)	Gender; marital status; educational attainment; dialect proficiency; frequency of interaction with local people; going back home in spring festival; Family settlement intention
Liu et al. (2016b)	1953 respondents from 2009 twelve-city migrant survey	Settlement intention: yes (54.56%); no (45.44%)	Gender; martial status; housing condition; frequency of interaction with local people; experience of discrimination; going back home in spring festival; child in hometown; family settlement intention
Guo (2016)	163,000 respondents from 2014 survey of National Dynamic Monitoring of the Floating Population	Settlement intention: yes (55.46%), no (13.8%), not sure (30.74%)	Age; gender; educational attainment; marital status; city citizens; co-migration; duration of migration; inter municipality flow; employment type; housing condition

Table 1 (continued)

Study	Sample	Settlement intention/*hukou* transfer intention	Significant determinants
Tang et al. (2016)	404 respondents from household survey in nine villages of Jiangning District, Nanjing	Settlement intention: yes (58.2%), no (41.8%)	Age; occupation; house size; expected better employment opportunity in urban areas; expected more convenient life in urban areas; expected better contact with relatives and friends

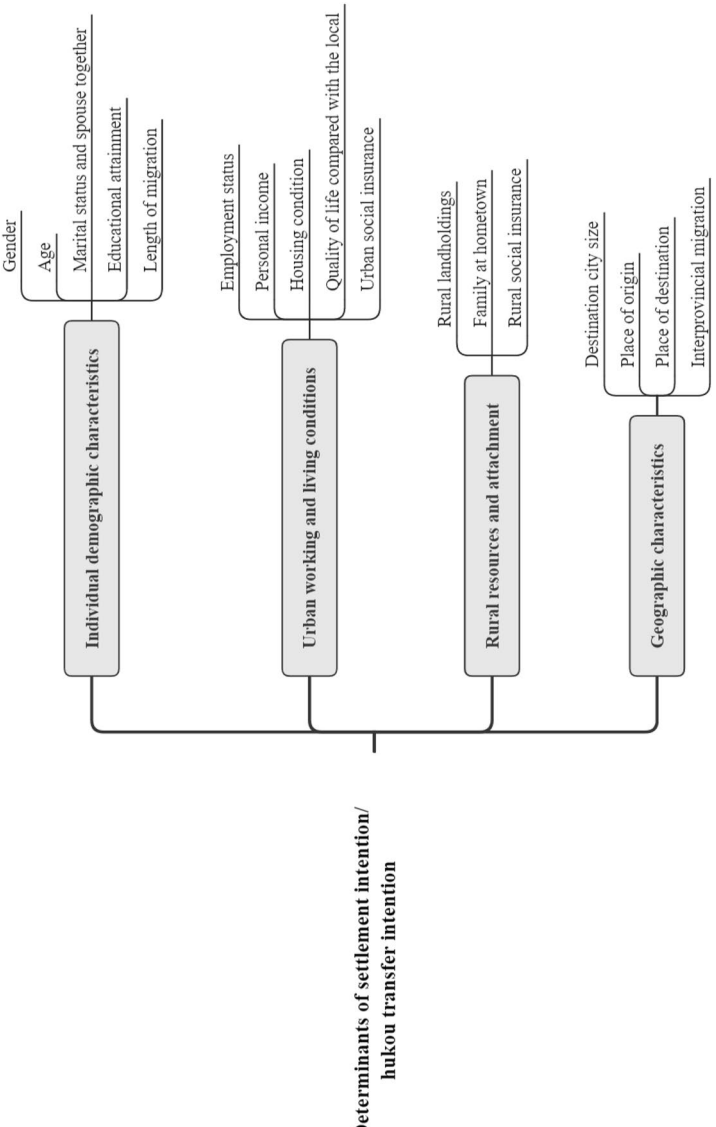

Fig. 2 Conceptual framework of analyzing the determinants of settlement intention and *hukou* transfer intention for rural migrants

The first category is their individual demographic characteristics, including gender, age, marital status and spouse living together, educational attainment, and length of migration. The second category is urban working and living conditions, including employment status, personal income, housing condition, quality of life compared with local people, and urban social insurance. The third category is rural resources and attachment, such as rural landholdings, family in the hometown, and rural social insurance. The fourth category is the geographic characteristics, including destination city size, place of origin, place of destination, and inter-provincial migration. These potential factors are used to investigate the determinants and explore the driving mechanisms of settlement intention and *hukou* transfer intention of rural migrants by binary logistic regression as presented in the following part.

Data and Methodology

Data

This research is based on the data collected in the China Labor-force Dynamics Survey (CLDS) in 2014. It was a national survey that covers labor force samples in 29 provinces and municipalities of China, excluding Hong Kong, Macau, Taiwan, Tibet and Hainan. By multistage cluster, stratified, probability proportionate to size sampling method, 14,214 households of 401 communities in China were chosen in the survey. The individuals with working ability and living together with the family were surveyed, and a total of 23,594 individual questionnaires were obtained. For other family members with working ability but living apart from the family, only partial questionnaires were surveyed from their families. The CLDS in 2014 has attained various individual information, such as education, work, migration, health, social participation, economic activities, and organization. Since this study focuses on rural migrants, the floating population who resided in the urban communities but had rural *hukou* were selected from the database. There were a total of 1190 rural migrants participating in this survey with complete information and 8390 rural migrants with partial information provided by their families. Since this study aims to understand the individual settlement and *hukou* transfer intention of rural migrants, it can only rely on the data about the former 1190 individual questionnaires. After extracting the indicators measuring their settlement intention and *hukou* transfer intention as well as a variety of potential influencing factors, 1145 cases were valid for the analysis after dropping out all the cases with missing values.

Methodology

Settlement intention, i.e., de facto permanent migration intention, refers to the intention of rural migrants to permanently settle in the cities as opposed to return to home countryside in the long-term (Chen and Liu 2016). Based on previous research (Guo 2016; Tan et al. 2015), this study adopts the question whether the rural migrants have a long-term plan to stay in the current host city to measure their settlement

intention. The answers of respondents included: very likely, more likely, undecided, more unlikely, and very unlikely. Accordingly, those who selected "very likely" and "more likely" constituted the "yes, have settlement intention" group (coded as 1), while those selected other choices constituted the "no, have no settlement intention" group (coded as 0). For *hukou* transfer intention (de jure permanent migration intention), answers to the question "Do you intend to transfer rural *hukou* to the current host cities?" are adopted to measure it. Similarly, the rural migrants who were willing to transfer *hukou* constitute the "yes "group (coded as 1); the others who were unwilling or uncertain to transfer *hukou* to the cities constitute the "no" group (coded as 0).

Based on the conceptual framework, this study chose four types of influencing factors including individual demographic characteristics, urban working and living conditions, rural resources and attachment, and geographic characteristics. Accordingly, all related indicators that belong to these four types of factors were collected for analysis. After excluding a few variables due to multicolinearity, the description of all the remaining independent variables are presented in Table 2. When comparing these characteristics with the results of 2014 Monitoring Report of Rural Migrant Workers in China (National Bureau of Statistics of China 2015b), they are generally similar but have a few differences. For instance, the percentage of males in this survey (46.6%) is much lower than that of the Monitoring Report (67.0%). The rural migrants with educational level of senior high school and above accounted for 34.5% of the respondents in this survey, much higher than the percentage in the Monitoring Report (23.8%). The percentage of cross-provincial migration is 41.3% in the survey, similar with that of the Monitoring Report (46.8%). These differences are mainly because this survey focuses on the rural migrant labor force that has ability to work but may not currently work while the Monitoring Report focuses on the current rural migrant workers. Nevertheless, the samples from the survey are collected following rigid sampling process and reliable for the data analysis.

Two binary logistic regression models were built to compare the key determinants of settlement intention and *hukou* transfer intention of rural migrants in China. In both models, the variables in Table 2 were treated as independent variables, while settlement intention and *hukou* transfer intention of rural migrants were dependent variables, respectively. All these data were analyzed by generalized linear model in SPSS 20.0. The Chi square statistic, Cox & Snell-R^2 and Nagelkerke-R^2 were used to test the model fit. Based on the findings, four binary logistic regression models were further built to examine the characteristics of four sub-types of rural migrants with different settlement intention and *hukou* transfer intention. In the following sectors, the results of the data analysis will be presented.

Results

Descriptive Analysis of Settlement Intention and *Hukou* Transfer Intention

As shown in Table 3, 36.2% of the respondents chose to settle down in the current host city in the long-term, while 63.8% chose to return to hometown or move

Table 2 Descriptive statistics of key independent variables

Variables	Percentage	Variable	Percentage
Individual demographic characteristics			
Gender		Marital status	
Female	53.4	Single	20.8
Male	46.6	Married	79.2
Age		Educational attainment	
< 25	17.1	Primary school and below	23.0
25–34	32.1	Junior high school	42.5
35–44	24.3	Senior high school	24.3
45–54	16.9	College levels and above	10.2
≥ 55	9.7	Length of migration	
Spouse living together		< 5	25.1
No	35.3	5–9	21.3
Yes	64.7	≥ 10	53.6
Urban working and living conditions			
Employment status		Housing condition	
Unemployed	24.0	Self-owned	30.0
Employee	57.1	Rent	62.6
Employer or self-employed	18.9	Others	7.3
Quality of life compared with the local		Urban social insurance	
Lower	53.0	Both pension and medical insurance	13.6
Equal	41.5	Either pension or medial insurance	13.4
Higher	5.5	None	73.0
Personal annual income			
< 12,000	24.3		
12,000–23,999	17.3		
24,000–35,999	19.2		
≥ 36,000	25.9		
Not applicable	13.3		
Rural resources and attachment			
Rural landholdings		Family member at hometown	
No	28.6	No	46.3
Yes	71.4	Yes	53.7
Rural social insurance			
Both pension and medical insurance	12.9		
Either pension or medial insurance	44.5		
None	42.5		
Geographical characteristics			
Place of destination		Place of origin	
Eastern region	58.4	Eastern region	27.3
Central region	22.8	Central region	41.4
Western region	18.8	Western region	31.3
Destination city size		Inter-provincial migration	

Table 2 (continued)

Variables	Percentage	Variable	Percentage
Small city	13.3	Cross-province	41.3
Medium-sized city	18.3	Within-province	58.7
Large city	41.7		
Megacity	26.7		
Observations	N = 1145		

Table 3 Distribution of settlement intention and *hukou* transfer intention

		Hukou transfer intention		Total
		Yes	No	
Settlement intention	Yes	103 (9.0%)	311 (27.2%)	414 (36.2%)
	No	146 (12.8%)	585 (51.1%)	731 (63.8%)
Total		249 (21.7%)	896 (78.3%)	1145 (100.0%)

The number denotes the frequency, and the number in the bracket denotes the percentage

to other places. When asking about the main obstacles for staying in the current cities, the rural migrants' answers included high living cost (24.0%), high housing price (18.8%), family at hometown (14.1%), low personal income (12.1%), and difficulty of children education in the cites (4.7%). For *hukou* transfer intention, there were 21.7% of the respondents willing to transfer *hukou* to the current host cities, much lower than the settlement intention. These rates are generally consistent with the existing studies shown in Table 1, which suggested the difference between settlement intention and *hukou* transfer intention of rural migrants in China. It is also found that 9.0% of the respondents intended to settle down and convert *hukou* at the same time, 27.2% of them intended to settle down in the cites but rejected *hukou* conversion, 12.8% of them intended to convert *hukou* to the cities but rejected to settle down, and 51.1% of them did not intend to settle down or convert *hukou* at all. In other words, most of the rural migrants were not willing to settle down in the cities or convert *hukou* to the cities at all, nearly one-third of them were willing to settle down in the cities without converting their *hukou* status, and only 9.0% of them has the willingness of complete citizenization.

When further exploring where the rural migrants wanted to permanently settle down, it can be seen that the current host city was their first choice (Fig. 3). However, the majority of them were not willing to transfer their *hukou* from home countryside to the cities (Fig. 4). It is interesting that although 36% of the respondents were willing to permanently live in the current host city, only 22% of the respondents planned to transfer their *hukou* to the current host city. In contrast, although 58% of the respondents planned to keep their *hukou* in home countryside, only 33% of them were willing to return to live in the home countryside. Meanwhile, there were 20% of the respondents planned to settle in the urban areas nearby their

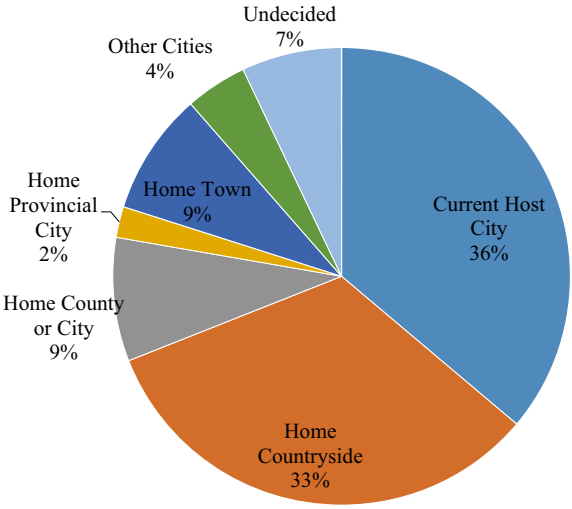

Fig. 3 The places of the rural migrants' settlement intention

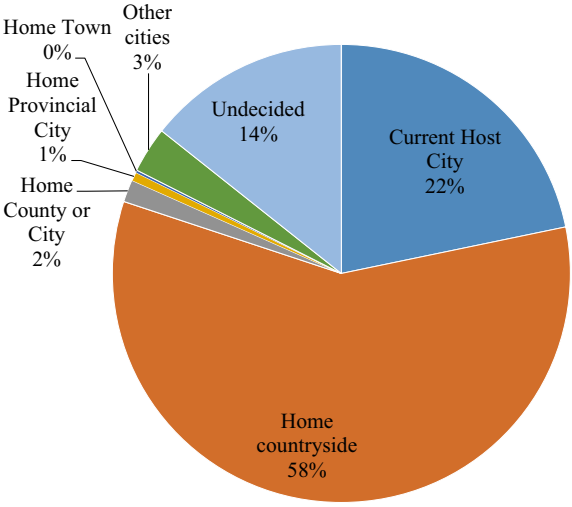

Fig. 4 The places of rural migrants' *hukou* settlement intention

hometown, including home provincial city, home county or city, or home town, but only 3% of them were willing to transfer their *hukou* to these places. The results have suggested that there was significant spatial mismatch between rural migrants' settlement intention and *hukou* transfer intention in different cities (Chen and Fan 2016). Thus, it is necessary to explore the key determinants and driving mechanisms of rural migrants' settlement intention and *hukou* transfer intention, respectively.

Table 4 Binary logistic regression analysis on settlement intention

Independent variable	Coefficient	Standard error	*p*-value	Odds ratio
Individual demographic characteristics				
Gender (reference: male)				
Female	0.024	0.1703	0.887	1.025
Age (reference: ≥ 55)				
< 25	0.537	0.4151	0.196	1.711
25–34	0.875	0.3208	0.006***	2.399
35–44	0.475	0.3079	0.123	1.608
45–54	0.195	0.3088	0.528	1.215
Marital status * spouse living together (reference: married and spouse living together)				
Single	− 0.450	0.2724	0.098*	0.637
Married, spouse living apart	− 0.074	0.2349	0.752	0.929
Educational attainment (reference: primary school and below)				
College levels and above	0.851	0.3468	0.014**	2.342
Senior high school	0.193	0.2646	0.466	1.213
Junior high school	0.096	0.2215	0.666	1.100
Length of migration (reference: ≥ 10)				
< 5	− 0.201	0.2354	0.393	0.818
5–9	− 0.040	0.2260	0.858	0.960
Urban working and living conditions				
Employment status (reference: employee)				
Unemployed	0.285	0.3094	0.357	1.329
Employer or self-employed	0.638	0.2167	0.003***	1.892
Personal income (reference: ≥ 36,000)				
Not applicable	− 0.180	0.4017	0.655	0.836
< 12,000	− 0.021	0.2834	0.942	0.980
12,000–23,999	0.022	0.2659	0.935	1.022
24,000–35,999	− 0.222	0.2524	0.379	0.801
Housing condition (reference: others)				
Self-owned	0.683	0.3044	0.025**	1.980
Rent	− 1.060	0.2877	0.000***	0.346
Quality of life compared with the local (reference: higher)				
Lower	− 0.943	0.3368	0.005**	0.390
Equal	− 0.625	0.3379	0.064*	0.535
Urban social insurance (reference: both pension and medical insurance)				
Either pension or medical insurance	− 0.365	0.2591	0.159	0.694
None	0.006	0.3090	0.985	1.006
Rural resources and attachment				
Rural landholdings (reference: yes)				
No	0.507	0.1698	0.003***	1.661
Family member at hometown (reference: yes)				
No	0.667	0.1675	0.000***	1.948

Table 4 (continued)

Independent variable	Coefficient	Standard error	*p*-value	Odds ratio
Rural social insurance (reference: both pension and medical insurance)				
Either pension or medical insurance	−0.148	0.2539	0.561	0.863
None	−0.405	0.2500	0.105	0.667
Geographical characteristics				
Destination city size (reference: megacity)				
Small city	0.463	0.3037	0.127	1.589
Medium-sized city	0.582	0.2625	0.027**	1.790
Large city	0.277	0.2542	0.275	1.320
Place of destination (reference: western region)				
Eastern region	−0.285	0.3318	0.391	0.752
Central region	−0.061	0.3421	0.859	0.941
Place of origin (reference: western region)				
Eastern region	0.185	0.3037	0.543	1.203
Central region	−0.083	0.2781	0.766	0.921
Inter-provincial migration (reference: within-province)				
Cross-province	−0.847	0.2424	0.000***	0.429
Model χ^2	433.098***			
Cox & Snell R square	0.268			
Nagelkerke R square	0.368			

***Denotes a significant level of 0.01, **denotes a significant level of 0.05, *denotes a significant level of 0.10

Modeling Settlement Intention of Rural Migrants

Table 4 presents the results of logistic regression analysis about settlement intention for rural migrants. First of all, the assumption of multicollinearity was met since all the Tolerance values were greater than 0.1 and VIF values were much <5 for all the independent variables. Second, the model indicated a good overall fit, $\chi^2(36)=433.098$, $p<0.001$. Third, the coefficients indicated that age, marital status and spouse living together, educational attainment, employment status, housing condition, quality of life compared with the local, rural landholdings, family member at hometown, destination city size, and inter-provincial migration were significantly correlated with the settlement intention of rural migrants.

The odds ratios further suggested the specific contrast among different groups of the variables. Among the factors of individual demographic characteristics, the odds of the young aged between 25 and 34 years to settle in the cities was 2.399 times that of the old aged above 55 years; the odds of the single rural migrants was 0.637 times that of the ones married and with spouse living together; the odds of rural migrants with college level and above to settle in the cities was 2.342 times that of the ones with educational attainment of primary school and below. That is to say, the young, better educated, married and with family living together in the cities were more likely to settle in the cities in the long-term. This finding is consistent with

previous studies that the rural migrants that were young and had higher educational attainment were more inclined to settle in cities (Zhu and Chen 2010; Tang and Feng 2015; Tan et al. 2015). It is probably related to precarious work and low pay for the rural migrants with old age, because urban employers are far less inclined to hire older migrants and many of the migrants lost hope that they can secure stable employment or livable subsistence when they get older. However, gender was found to be not significant in this study, which is consistent with the argument of Fan (2011) that whether gender is a significant determinant on settlement intention is not as clear-cut. Among the factors of urban working and living conditions, their employment status, housing condition and quality of life have statistically significant effect on the settlement intention. The rural migrants that were employers or self-employed were more likely to choose to settle in the cities than the employees. It is also consistent with previous studies that emphasized the relationship between self-employment and intention of permanent urban settlement (Cao et al. 2015). Moreover, the rural migrants with self-owned housing or quality of life higher than the local people were more likely to settle in the cities, the underlying reason of which is precarious employment and low pay for most rural migrants in the cities. Among the factors of rural resources and attachment, the odds of rural migrants that had no land at home to settle in the cites were 1.661 times that for those with land at home, and the odds of those who had no family members at hometown to settle in the cites were 1.948 times that for those with family at hometown. Thus, the landless rural migrants and the ones without family in hometown were more likely to permanently stay in the cities. Many previous studies have emphasized the effects of household arrangement on rural migrants' settlement intention (Zhu and Chen 2010; Fan 2011). When the family members are all in the cities, the rural migrants were more inclined to settle down in the cities. Among the factors of geographical characteristics, the destination city size and inter-provincial migration were significant determinants. It showed that the rural migrants tended to settle in the smaller cities instead of the megacities, and the rural migrants moving within-province were more likely to settle in the cities than the cross-provincial migrants. In sum, the demographic characteristics, urban working and living characteristics, rural land and house possession, and geographical characteristics comprehensively determines the settlement intention of rural migrants.

Modeling *Hukou* Transfer Intention of Rural Migrants

Table 5 further summarizes the results of binary logistic regression analysis on *hukou* transfer intention of rural migrants. The model also passed the assumption of multicollinearity and suggested a good overall fit, $\chi^2(36) = 72.701$, $p < 0.001$. The regression coefficients indicated that age, personal income, rural landholdings, destination city size, and place of origin were significantly correlated with the *hukou* transfer intention of rural migrants.

For the individual demographic characteristics, the young aged between 25 and 34 years were more inclined to transfer *hukou* to the cities than the ones aged above 55 years old. It is consistent with the settlement intention, which means that the

Table 5 Binary logistic regression analysis on *hukou* transfer intention

Independent variable	Coefficient	Standard error	*p*-value	Odds ratio
Individual demographic characteristics				
Gender (reference: male)				
Female	0.091	0.1680	0.586	1.096
Age (reference: ≥ 55)				
< 25	0.616	0.4268	0.149	1.852
25–34	0.665	0.3562	0.062*	1.945
35–44	0.308	0.3525	0.382	1.361
45–54	0.416	0.3509	0.236	1.515
Marital status * spouse living together (reference: married and spouse living together)				
Single	0.067	0.2539	0.793	1.069
Married, spouse living apart	− 0.230	0.2290	0.316	0.795
Educational attainment (reference: primary school and below)				
College levels and above	− 0.567	0.3500	0.105	0.567
Senior high school	− 0.377	0.2622	0.151	0.686
Junior high school	− 0.118	0.2130	0.579	0.889
Length of migration (reference: ≥ 10)				
< 5	− 0.083	0.2216	0.708	0.920
5–9	0.103	0.2128	0.629	1.108
Urban working and living conditions				
Employment status (reference: employee)				
Unemployed	− 0.528	0.3346	0.115	0.590
Employer or self-employed	− 0.122	0.2171	0.575	0.885
Personal income (reference: ≥ 36,000)				
Not applicable	0.191	0.3972	0.631	1.210
< 12,000	0.050	0.2598	0.847	1.051
12,000–23,999	− 0.498	0.2595	0.055*	0.608
24,000–35,999	− 0.502	0.2328	0.031**	0.605
Housing condition (reference: others)				
Self-owned	0.300	0.3441	0.383	1.350
Rent	0.115	0.3128	0.714	1.122
Quality of life compared with the local (reference: higher)				
Lower	− 0.091	0.3253	0.779	0.913
Equal	− 0.259	0.3291	0.431	0.771
Urban social insurance (reference: both pension and medical insurance)				
Either pension or medical insurance	− 0.061	0.2389	0.798	0.941
None	− 0.254	0.2834	0.369	0.775
Rural resources and attachment				
Rural landholdings (reference: yes)				
No	0.339	0.1726	0.050**	1.403
Family member at hometown (reference: yes)				
No	− 0.029	0.1754	0.869	0.972

Table 5 (continued)

Independent variable	Coefficient	Standard error	*p*-value	Odds ratio
Rural social insurance (reference: both pension and medical insurance)				
Either pension or medical insurance	0.141	0.2626	0.591	1.152
None	0.013	0.2575	0.961	1.013
Geographical characteristics				
Destination city size (reference: megacity)				
Small city	− 1.051	0.3264	0.001***	0.350
Medium-sized city	− 0.152	0.2177	0.486	0.859
Large city	− 0.611	0.2287	0.008***	0.543
Place of destination (reference: western region)				
Eastern region	0.439	0.3643	0.228	1.551
Central region	− 0.517	0.3548	0.145	0.596
Place of origin (reference: western region)				
Eastern region	− 0.546	0.3242	0.092*	0.579
Central region	− 0.176	0.2296	0.443	0.838
Inter-provincial migration (reference: within-province)				
Cross-province	− 0.478	0.2916	0.101	0.620
Model χ^2	72.701***			
Cox & Snell R square	0.032			
Nagelkerke R square	0.049			

***Denotes a significant level of 0.01, **denotes a significant level of 0.05, *denotes a significant level of 0.10

young rural migrants will be the main population of urbanization and citizenization in China. Among the factors of urban working and living characteristics, there were only one factor had significantly effect on *hukou* transfer intention, which was personal income. It showed that the rural migrants with annual income less than 36,000 were more unwilling to transfer *hukou* to the cities than the higher income migrants, with the odds ratio of 0.6. It is possibly due to that the conversion from rural to urban *hukou* requires the cost of urban insurance and living, which may not be affordable for the low income rural migrants. Since the urban employment for rural migrants has always been highly precarious and poorly compensated, they choose to continue to depend on their rural land and house to guarantee subsistence. Among the factors of rural resources and attachment, there was only one factor significantly determining the *hukou* transfer intention of rural migrants, which is rural landholdings. The odds of landless rural migrants to transfer *hukou* to the cites were 1.403 times that for those with land in hometown. Indeed, the rural land system is the key of urban–rural *hukou* conversion, because the rural migrants were afraid of losing their rural land by changing *hukou* from rural to urban. In addition, the factors of geographical characteristics in terms of destination city size and place of origin also determine the *hukou* transfer intention. The rural migrants were more willing to transfer their rural *hukou* to the megacities instead of other smaller cities. In other words, the urban *hukou* in the megacities were more attractive for rural migrants,

which is consistent with previous studies (Chen and Fan 2016). Meanwhile, the rural migrants from the eastern region were more unwilling to transfer *hukou* to the cities than the ones from the western region. In sum, whether rural migrants were willing to transfer *hukou* to the current host cities were more determined by their personal citizenization capacity and the benefits related to rural and urban *hukou*, including rural landholdings and the size of the current host city, since *hukou* in the megacities usually relates to superior economic and social benefits.

Different Driving Mechanisms of Settlement Intention and *Hukou* Transfer Intention for Rural Migrants

The differences of driving mechanisms of rural migrants' settlement intention and *hukou* transfer intention were further explored by examining the characteristics of the following four sub-types of rural migrants: (1) the rural migrants who intended to settle down and convert *hukou* at the same time; (2) those who intended to settle down but rejected *hukou* conversion; (3) those who intended to convert *hukou* but rejected settling down in the cites; and (4) those who did not intend to settle down or convert *hukou* at all. Table 6 presents the results of binary logistic regression analysis in respect to those four sub-types of rural migrants' settlement intention and *hukou* transfer intention.

First, it was found that whether the rural migrants intended to settle down and convert *hukou* at the same time was significantly associated with age, educational attainment, length of migration, personal income, quality of life compared with the local, and destination city size. The rural migrants with younger age, higher personal income, and higher quality of life than the local people were more likely to choose to settle down and convert *hukou* to the cities at the same time. Meanwhile, the rural migrants preferred megacities to settle down and transfer *hukou* instead of small cities. In other words, this type of rural migrants usually had high personal citizenization capacity and preferred megacities.

Second, for the rural migrants intended to settle down but reject *hukou* conversion, their intention was associated with educational attainment, employment status, housing condition, quality of life compared with the local, rural landholdings, family member at hometown, destination city size, the place of destination and origin, and inter-provincial migration. The rural migrants with higher educational attainment and better housing condition, higher quality of life than the local people, working as employees, without rural landholdings, and without family member at hometown were more likely to settle down in the cities but reject *hukou* conversion. Meanwhile, the rural migrants currently living in small cities and western region and moving within-province were more likely to settle down but reject *hukou* conversion. In other words, this type of rural migrants usually had high citizenization capacity and low migration cost. It is also worth noting that, although these rural migrants rejected transferring *hukou* to the current host cities, they may still chose to transfer *hukou* to some other cities with higher urban *hukou* benefits.

For the rural migrants intended to convert *hukou* but reject settling down in the cities, their intention was significantly associated with the destination city size. They

Table 6 Binary logistic regression analysis on four different types of settlement intention and *hukou* transfer intention

Independent variable	Model 1 Settle down and convert *hukou*		Model 2 Settle down but not convert *hukou*		Model 3 Convert *hukou* but not settle down		Model 4 Not settle down or convert *hukou* at all	
	p-Value	Odds ratio	*p*-Value	Odds ratio	*p*-Value	Odds ratio	*p*-Value	Odds ratio
Individual demographic characteristics								
Gender (reference: male)								
Female	0.562	1.153	0.833	0.963	0.938	1.017	0.993	0.999
Age (reference: ≥ 55)								
< 25	0.023**	4.686	0.711	0.849	0.797	0.875	0.270	0.672
25–34	0.007***	4.716	0.450	1.275	0.925	0.960	0.015**	0.492
35–44	0.153	2.272	0.508	1.227	0.859	0.926	0.181	0.687
45–54	0.124	2.396	0.813	0.929	0.956	1.024	0.438	0.804
Marital status * spouse living together (reference: married and spouse living together)								
Single	0.689	0.862	0.296	0.737	0.423	1.287	0.229	1.325
Married, spouse living apart	0.272	0.674	0.654	1.115	0.642	0.877	0.545	1.129
Educational attainment (reference: primary school and below)								
College levels and above	0.116	0.478	0.001***	3.255	0.242	0.561	0.082*	0.586
Senior high school	0.057*	0.478	0.031**	1.828	0.816	0.926	0.620	0.891
Junior high school	0.187	0.655	0.207	1.345	0.785	1.074	0.525	0.885
Length of migration (reference: ≥ 10)								
< 5	0.591	1.201	0.162	0.700	0.307	0.760	0.152	1.322
5–9	0.052*	1.817	0.127	0.689	0.279	0.747	0.359	1.193
Urban working and living conditions								
Employment status (reference: employee)								
Unemployed	0.229	0.549	0.871	0.945	0.398	0.701	0.145	1.543
Employer or self-employed	0.196	0.672	0.018**	0.586	0.610	1.155	0.037**	1.498

Table 6 (continued)

Independent variable	Model 1 Settle down and convert *hukou*		Model 2 Settle down but not convert *hukou*		Model 3 Convert *hukou* but not settle down		Model 4 Not settle down or convert *hukou* at all	
	p-Value	Odds ratio	*p*-Value	Odds ratio	*p*-Value	Odds ratio	*p*-Value	Odds ratio
Personal income (reference: ≥ 36000)								
Not applicable	0.955	0.968	0.700	0.850	0.384	1.562	0.989	0.995
< 12,000	0.505	0.774	0.704	1.122	0.309	1.382	0.526	0.855
12,000–23,999	0.049**	0.455	0.146	1.499	0.543	0.822	0.727	1.084
24,000–35,999	0.204	0.643	0.862	1.049	0.146	0.657	0.060*	1.488
Housing condition (reference: others)								
Self-owned	0.107	2.211	0.526	1.223	0.161	0.521	0.019**	0.512
Rent	0.331	0.629	0.001***	0.342	0.314	1.464	0.012**	1.904
Quality of life compared with the local (reference: higher)								
Lower	0.050**	0.452	0.086*	0.547	0.218	1.853	0.170	1.539
Equal	0.100*	0.519	0.338	0.717	0.637	1.275	0.285	1.402
Urban social insurance (reference: both pension and medical insurance)								
Either pension or medical insurance	0.338	0.670	0.435	1.292	0.783	0.908	0.921	1.026
None	0.442	0.764	0.520	0.838	0.703	1.120	0.290	1.266
Rural resources and attachment								
Rural landholdings (reference: yes)								
No	0.154	1.404	0.060*	1.389	0.293	1.269	0.001***	0.584
Family member at hometown (reference: yes)								
No	0.114	1.485	0.004**	1.675	0.136	0.709	0.015**	0.691
Rural social insurance (reference: both pension and medical insurance)								
Either pension or medical insurance	0.980	1.009	0.134	0.684	0.972	1.012	0.167	1.359
None	0.924	1.037	0.746	0.920	0.564	1.213	0.852	1.043

Table 6 (continued)

Independent variable	Model 1 Settle down and convert *hukou*		Model 2 Settle down but not convert *hukou*		Model 3 Convert *hukou* but not settle down		Model 4 Not settle down or convert *hukou* at all	
	p-Value	Odds ratio	*p*-Value	Odds ratio	*p*-Value	Odds ratio	*p*-Value	Odds ratio
Geographical characteristics								
Destination city size (reference: megacity)								
Small city	0.096*	0.457	0.003***	2.693	0.014**	0.339	0.473	1.216
Medium-sized city	0.334	0.709	0.001***	2.669	0.949	1.016	0.086*	0.694
Large city	0.610	0.837	0.062*	1.739	0.004***	0.436	0.147	1.359
Place of destination (reference: western region)								
Eastern region	0.402	1.532	0.024**	0.441	0.493	1.407	0.929	0.974
Central region	0.940	0.963	0.538	0.793	0.139	0.479	0.288	1.368
Place of origin (reference: western region)								
Eastern region	0.324	0.635	0.028**	2.113	0.370	0.680	0.465	1.210
Central region	0.226	0.628	0.381	1.340	0.913	1.029	0.736	1.074
Inter-provincial migration (reference: within-province)								
Cross-province	0.283	0.656	0.001***	0.444	0.316	0.669	0.000***	2.275
Model χ^2	73.589***		367.318***		96.616***		256.946***	
Cox & Snell R square	0.043		0.240		0.052		0.153	
Nagelkerke R square	0.094		0.348		0.097		0.204	

***Denotes a significant level of 0.01, **denotes a significant level of 0.05, *denotes a significant level of 0.10

preferred converting *hukou* to the megacities but rejecting settling down there. However, the current *hukou* system in China may not allow the rural migrants to realize this type of settlement, so their future settlement choices had high uncertainly (Cai and Wang 2007).

For the rural migrants without willingness to settle down or convert *hukou* at all, their intention was associated with age, educational attainment, employment status, personal income, housing condition, rural landholdings, family member at hometown, destination city size, and inter-provincial migration. The rural migrants with older age, lower educational attainment, lower personal income, worse housing condition, working as employer or self-employed, having rural landholding, and family member at hometown were more likely to reject both settlement and *hukou* conversion in the cities. Meanwhile, the rural migrants currently living in the megacities and moving cross-province were more likely to reject both settlement and *hukou* conversion. Thus, this type of rural migrants usually had low citizenization capacity and high migration cost.

In sum, the settlement intention of rural migrants (de facto permanent migration intention) was determined by trade-off between the benefits of settling down in the cities in the long-term and the benefits of returning to home countryside, which needed to consider personal citizenization motivation and capacity and migration cost. For hukou transfer intention (de jure permanent migration intention), it was determined by the trade-off between the benefits of converting *hukou* to the cities and retaining rural *hukou*.

Conclusion and Discussion

Based on the sample of rural migrants from China Labor-force Dynamics Survey (CLDS) in 2014, the determinants of settlement intention and *hukou* transfer intention have been revealed in this study. It comprehensively considered four types of possible influencing factors including individual demographic characteristics, urban working and living conditions, rural resources and attachment, and geographic characteristics. By binary logistic regression analysis, the significant determinants of settlement intention and *hukou* transfer intention as well as four sub-types of settlement intention and *hukou* transfer intention for rural migrants were identified. For settlement intention, similar with previous studies, it was found that the young aged and better educated, married with spouse living together rural migrants were more likely to settle in the cities. Other urban working and living factors including employment status, housing condition, and quality of life, rural landholdings, family at hometown, destination city size, and inter-provincial migration were also significant determinants (Zhu and Chen 2010; Tang and Feng 2015; Tan et al. 2015). For *hukou* transfer intention, unlike the findings of settlement intention, only the age, personal income, rural landholdings, destination city size, and place of origin were significant. By examining the characteristics of four sub-types of rural migrants, it was found that the rural migrants who intended to settle down and convert *hukou* at the same time usually had high personal citizenization capacity and preferred megacities; those who intended to settle down but rejected *hukou* conversion usually had

high citizenization capacity and low migration cost; those who intended to convert *hukou* but rejected settling down in the cites preferred megacities instead of small cities; those who did not to intend to settle down or convert *hukou* at all usually had low citizenization capacity and high migration cost. Based on these findings, it is argued that besides the individual demographic and geographic characteristics, the settlement intention of rural migrants was mostly determined by the trade-off between the better working and living conditions in the current host cities and the rural landholding and attachment in the hometown, which was related to the comparison of work opportunity and income level for the rural migrants in the cities and hometown, whereas *hukou* transfer intention was mainly determined by personal citizenization capacity and the trade-off between benefits related to rural and urban *hukou*, since rural landholdings was usually related with rural *hukou* and the benefits of urban *hukou* was usually related to the city size. Thus, the size of the destination city has exerted different effects on settlement intention and *hukou* transfer intention. Although most rural migrants were more willing to live in the small and medium-sized cities instead of large and megacities, they prefer transferring their *hukou* to the large and megacities instead of the small and medium-sized cities.

The findings of this study can help to understand why substantial rural people migrate to the urban areas but most of their *hukou* are still registered in the rural areas, which results in the gap between de facto and de jure urbanization in China. It is not only related to the institutional barriers for rural migrants to transfer *hukou* to the cities, but also related to their own intentions. The rural migrants settle in the cities mainly for the urban working opportunities and living condition; however, whether they are willing to transfer *hukou* to the cities is determined by the competitive advantage between urban and rural *hukou*. It shows that at current stage, the benefits that are tied to rural *hukou* have more attractiveness than urban *hukou* for most rural migrants (Chen and Fan 2016). Meanwhile, the existing land management system prohibits free trade of both rural houses and land, which makes the rural migrants keep their houses and farmland in home countryside by holding rural *hukou* (Liu et al. 2014). In the near future, the Chinese government aims to realize about 100 million rural migrants to settle in the cities and meanwhile transfer their *hukou* to the cities. Thus, on one hand, it is necessary to promote their settlement intention by improving rural migrants' livelihood and well-being in the cities (Bai et al. 2014). The strategies include ensuring stable employment and livable pensions in the cities for rural migrants, establishing a better community environment by strengthening their communication with local residents, improving the urban environment, and changing their attachment to the rural lives. On the other hand, it is demanded to promote their *hukou* transfer intention by kinds of reforms, including unhooking connection between rural *hukou* and rural landholdings but still keeping their land property right, bringing rural houses and land into the land market (Liu et al. 2014), establishing urban–rural integrated medical insurance so as to eliminate their reliance on rural medical insurance at hometown, providing more welfare housing to rural migrants in the cities (Lin et al. 2014). When reforming the medical insurance and welfare housing, it is important to enhance portability of medical and pension benefits, because the employment of rural migrants is usually unstable and the social insurance and pension benefits are always tied to localities, which makes

the migrant workers keep their village-based insurance and be reluctant to contribute to urban funds that are likely never to benefit them. In sum, urban–rural integrated development is significant for the citizeniztion of rural migrants and people-oriented urbanization, especially realizing optimized rural–urban resources allocation including population, industry, and land (Liu et al. 2013). It needs reform in aspects of *hukou* policy, rural land management policy, medical insurance policy, and welfare housing policy, among which *hukou* reform is especially important. Some scholars argue that the abolition of urban–rural *hukou* system can allow rural migrants to receive kinds of public social services in the cities, such as public housing, education, and greater job opportunities (Lau and Chiu 2013). However, some others point out that it may promote the conversion of rural land on the outskirts of cities to develop industrial parks, large-scale agribusiness farms, and remote concentrated housing developments, and put many displaced villagers in a very precarious position due to the unstable nature of urban employment for migrants (Zhan 2017). Thus, both the national and the municipal authorities should focus on promoting all the migrants' welfare instead of obtaining the land of villagers when eliminating the differences between urban and rural hukou.

Based on this study, we argue that the fundamental significance of *hukou* reform in China is to emphasize the people-oriented strategy and achieving the optimized market allocation of resources and welfare arrangement in the space of population migration. Currently, the Chinese government has proposed some strategies about *hukou* reform to promote the citizenization of rural migrants (State Council 2014). The main strategies are as follows. First, adopting differentiated *hukou* settlement policies for different scales of cities and towns, by encouraging the settlement of rural migrants in small cities and towns and restricting their settlement in large and mega cities. Second, canceling the differences between rural and urban *hukou* and establishing institution of resident permits, which provides equal employment, education, medical rights for rural migrants as the local citizens. Third, broadening the coverage of urban public services to all urban resident population and hooking the financial transfer payment with citizenization of rural migrants across different regions. Fourth, reforming the rural property institution and ensuring the landholding rights of rural migrants. All these strategies may help the people-oriented urbanization in China but still face great challenges and have a long way to go.

In addition, this study inevitably has a few limitations. First, both the settlement intention and *hukou* transfer intention are stated preference of the rural migrants, which may be different from their revealed preference of settlement and *hukou* transfer behavior. Thus, further studies about their revealed settlement and *hukou* transfer behavior are needed based on longitudinal data. Second, the settlement and *hukou* transfer intention of rural migrants have some regional differences, and further academic and political exploration about the regional suitability for the settlement of rural migrants are needed (Chen et al. 2013). Nevertheless, this study has provided some insights for both theoretical and political implications of developing people-oriented urbanization in China.

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