Article

How does housing affordability affect migration intentions of married migrant workers? Social integration as a mediating variable

Li Tao[1], Lili Pang[1,*], Yigang Wei[2,3,4], Lei Zhong[1]

[1] School of Management, Shanghai University, Shanghai 200444, China

[2] School of Economics and Management, Beihang University, Beijing 100191, China

[3] Beijing Key Laboratory of Emergency Support Simulation Technologies for City Operation, Beijing 100191, China

[4] Laboratory for Low-carbon Intelligent Governance, Beihang University, Beijing 100191, China

* Corresponding author: Lili Pang, panglili.shu@foxmail.com

Abstract: Increasing migrant workers' belongingness to the locality is an important step in accelerating high-quality urbanization. Settlement intention can largely indicate this sense of belongingness, which is crucially affected by housing and social integration. Although the settlement intention of migrant workers has been widely investigated, inadequate attention has been paid to *hukou* transfer intention, which reflects the unique institutional arrangement in China. As family migration has become a trend, this study aims to investigate the two-dimensional migration intentions of married migrant workers in China, i.e. settlement intention and *hukou* transfer intention, and the mediating role of social integration between housing affordability and migration intentions. Based on the data from China Migrants Dynamic Survey 2017, the structural equation modelling was employed. Furthermore, four dimensions of social integration were examined (economic, social relation, cultural and psychological). The overall *hukou* transfer intention of married migrant workers was found to be low, whereas the settlement intention was relatively high. Social integration partially mediated the relationship between housing affordability and migration intentions. The regional characteristics of original and inflow places should be given special attention because they substantially affect married migrant workers' levels of social integration and migration intentions.

Keywords: housing affordability; social integration; settlement intention; *hukou* transfer intention, household strategy

1. Introduction

Against the backdrop of an ageing society, labour shortage and population migration, migrant workers are playing an increasingly important role in promoting regional development and shaping future urbanisation patterns (Gu et al., 2019). Since the 1990s, the floating population in China has increased significantly, thus peaking in 2014 at a total of 253 million people and slowly decreasing afterwards. Population floating patterns have undergone several changes in recent years in China. For instance, the trend of urban-urban migration, step-wise migration, intra-provincial migration and long-term settlement has increasingly been prominent (Lin and Zhu, 2022). Family migration has also become a trend (Lin and Zhu, 2022; Yinan, 2013). To develop a new type of urbanisation and facilitate in-situ urbanisation further, the Chinese government has been encouraging migrant households to settle down in the cities of inflow and transfer their hukou (*Hukou* is a foundational household registration system in China, established in the late 1950s. It is

based on original place of residence (local vs. non-local) and *hukou* type (agricultural vs. non-agricultural) (Tao et al., 2014)) to the locality (Chen et al., 2016; Chen et al., 2019; Shang et al., 2018). However, a vast number of migrant workers remain reluctant to transfer their *hukou* to their target location (Gu et al., 2019; Lin and Zhu, 2016). As such, trends show that *hukou* transfer intentions are much lower than settlement intentions (Gu et al., 2019).

Housing plays a pivotal role in determining migrants' settlement intentions in a locality (Dang et al., 2019; Liu et al., 2017; Xie and Chen, 2018). The limited housing affordability and the lack of housing security cause great housing stress to migrant workers in the host city (Li and Liu, 2018). This stress leads to poor housing quality and poor living conditions and, to some extent, causes social integration problems (Quandt et al., 2015; Zhou and Hui, 2022). Integration within the community has a significant impact on migrants' settlement intentions (Tezcan, 2019; Toruńczyk-Ruiz and Brunarska, 2018; Wang, 2013; Zhang and Chen, 2014). For instance, interaction with natives and proficiency in the local dialect may increase the urban settlement intentions of migrant workers (Wang, 2013). Furthermore, migrants' settlement intentions are low when they are not economically integrated into the locality (Tezcan, 2019).

Numerous studies have investigated the settlement intentions of migrant workers (Tang and Hao, 2018; Xie and Chen, 2018) and their influencing factors (Gu et al., 2019; Lin and Zhu, 2016). However, the hukou transfer intention of migrant workers, especially married migrant workers, has been underexamined. Furthermore, the mediating role of social integration in the relationship between housing affordability and migration intentions remains unknown. In the background of family migration, this study enriches the research on the migration intentions of married migrant workers and fills the knowledge gap. The effects of the factors related to migrant workers' places of origin (regional development level and administrative level) are further discussed.

In the subsequent sections, a literature review on housing affordability, social integration and migration intentions of migrant workers is conducted. Then, the data and methods used in this research are elaborated. The succeeding section discusses the descriptive analysis. Next, the results of the structural equation modelling (SEM) analyses are presented, including the mediating effects of social integration. Finally, the key findings of this study are discussed. Subsequent suggestions are delineated.

2. Literature review and hypotheses development

2.1. Migration of married migrant workers

Migrant workers are vital to the development of cities. Their migration has been the subject of much research attention. Until the 2000s, most migrant workers migrated as individuals in China, while their family members, especially women and children, were 'left behind' in rural areas (Jia and Tian 2010). Until the 1990s, the *hukou* system severely restricted migrant workers' access to urban public services, including health care and education, thus preventing entire families from permanently moving to cities (Hu et al., 2011). This migration pattern caused many social problems, e.g., left-behind children lagged behind their peers in health and

education (Li et al., 2021). Most left-behind women have to support the elderly and take care of their children while bearing the double burden of agricultural production and domestic work (Wu et al., 2023). With the relaxation of the *hukou* system in the 2010s, there has been a noticeable shift in migration patterns in China from an individual-centred to a family-centred approach (Fan and Li, 2020). Married migrant workers seem to exhibit a certain preference for destination cities. Couple migrants are relatively more likely to be located in mega cities, while entire family migrants are more likely to settle in less developed regions (Wu et al., 2023).

Considering the residential stability, married migrants were found to possess a strong willingness to integrate into the community. They have significantly high levels of social integration, psychological integration, environmental integration and community relationship integration (Liu et al., 2017). They can be exposed to like-minded local networks, which facilitate their integration into the labour market (Chang, 2020). However, compared with married migrants, unmarried ones were found to have higher settlement intentions (Liu et al., 2017).

Given the increasing trend of family migration in China, it is worth investigating the differentiations in married migrant workers concerning social integration and migration intentions, and the influencing factors, which has been under examined.

2.2. Social integration

Integration is viewed as an assimilation (Dustmann, 1996), and is considered the opposite of social exclusion and segregation (Tian et al., 2019). Social integration is the process of mutual cooperation and adaptation among individuals, groups and cultures (Yang, 2013). In the context of this study, the social integration of migrants involves gradual assimilation and reduced exclusion, as well as the unification of subjective expectations and the objective acceptance of the city; through this assimilation, the local population and the immigrants come into contact with each other and construct mutual relationships (Simmel, 2023).

The measurements of social integration were synthesised as follows: (1) the two-dimensional model, which includes structural and cultural dimensions (Gordon, 1964); (2) the three-dimensional model, which includes structural, sociocultural and political-legal integration (Junger-Tas, 2001), and (3) the four-dimensional model, which includes socioeconomic, political and cultural integration and the acceptance or rejection of migrants by the target society (Entzinger and Biezeveld, 2011). Some scholars use economic status, social interaction, cultural identity and social identity to measure social integration (Tian et al., 2019; Yue et al., 2013). Meanwhile, others use economic, political, cultural, social and psychological interactions to measure this integration (Burgoon, 2014; Grzymala-Kazlowska, 2016).

The social integration of migrant workers is a long process that is affected by multiple factors, including demographic and socioeconomic characteristics, migration characteristics and institutional factors. Young migrants are highly likely to integrate into the local society (Liu et al., 2012). Education level, income and the number of local resident friends are positively correlated with social integration, but production line work can reduce the extent of social integration of migrant workers

(Chen and Wang, 2015). Meanwhile, distance is a negative factor, along with dialect, social norms and challenges in local customs, which may hinder migrants from integrating into the local society (Chen and Wang, 2015).

Compared with migrants with agricultural *hukou*, those with non-agricultural *hukou*, due to better education and familiarity with urban environments (Chen, 2011), may possess more favorable conditions for integrating into the local society. Rural migrants frequently encounter barriers to economic and social integration within their host cities, constituting a significant urbanization challenge in China over the past decade (Tian et al., 2019). This results in domestic migrants, primarily from rural areas, facing disadvantaged and marginalized social status in their host cities (Zhang and Song, 2003).

2.3. Migration intentions

Several migration theories regarding the migration decision process have been developed, such as the dual economy model (Lewis, 1954), expected income theory (Todaro, 1969), new economics of migration (Stark and Bloom, 1985), push–pull migration theory (Lee, 1966), dual labour market theory (Piore, 1979), and social network theory (Massey, 1990). These classical theories attempt to explain individuals' migration decisions in terms of economic and social conditions, family factors, job markets, education levels and social capital. Migration intentions have received increasing attention in recent years. Although migration intentions do not necessarily lead to migration behaviour, they are informative for policy formulation in regional population management (Zhu and Chen, 2010).

A large number of studies have examined the settlement intentions of migrant workers and their influencing factors, including socioeconomic characteristics, regional factors and housing characteristics (Tang and Hao, 2018; Xie and Chen, 2018). Migrants with a young age, unmarried status, high levels of education, high income, low expenditure and high social and employment status have high settlement intentions (Dongliang, 2016; Huang et al., 2018; Liu et al., 2017; Xie and Chen, 2018). Migrants with many family members at the destination and high household income are also likely to settle down (Lin and Zhu, 2016).

As for regional factors, large cities are highly attractive to migrant workers for increased employment opportunities, high wages and excellent public services (Zhu and Chen, 2010). Although a large number of migrants have been attracted to the eastern region of China, their settlement intentions may not be high (Liu et al., 2020a). Migrants may also make settlement decisions based on comparisons between inflow and outflow regions. Migrants from less developed countries or regions are also likely to make permanent residency decisions in highly developed countries or regions because of increased opportunities for employment, salary and promotion. Subsequently, these factors benefit their children (Khoo and Mcdonald, 2008).

The effects of social integration on the settlement intention of migrant workers have also been examined. For instance, economic difficulties in the local society may decrease migrants' willingness to stay in the locality (Tezcan, 2019). In addition, perceived discrimination is associated with a high likelihood of return intentions (Gherghina et al., 2020). Meanwhile, interaction with locals and proficiency in

mastering the dialect have a directly positive effect on the sense of belonging of migrant workers, thus indirectly increasing their settlement intention (Gherghina et al., 2020; Toruńczyk-Ruiz and Brunarska, 2018; Wang, 2013).

In the context of China, migration intentions include not only settlement intention but also *hukou* transfer intention. As has been discussed, migrant workers with the intention to settle down may not necessarily transfer their *hukou* to the locality. These two intentions are interrelated but not equal to each other. Although the settlement intentions of migrant workers and their influencing factors have been widely investigated, inadequate attention has been paid to the *hukou* transfer intentions of migrant workers in the context of China.

2.4. Housing affordability

Housing has a substantial impact on the social integration and settlement intention of migrant workers. Housing marginalisation leads to a low level of social integration and a lack of communication between migrants and locals. This scenario can create a certain social and psychological distance, thus causing alienation, separation, rejection and even hostility. Differing housing models (i.e. congregate, single-site and scatter-site) may have little influence on social integration, while neighbourhoods may facilitate social support (Harris et al., 2019). Housing type also plays an important role. Migrants' social integration increases from those living in informal housing to private rentals, public rentals, informally owned housing, privately owned housing and publicly owned housing. Migrants who live in public housing, whether rented or owned, tend to have a higher level of social integration within each group (renters and owners) than other types (Lin et al., 2023). Further, housing attributes (e.g. quality, location and size) have a significant impact on migrants' settlement intentions (Tao et al., 2015). Migrants living in public rental housing, enjoying housing support or owning formal housing are highly willing to stay in the locality (Liu et al., 2017; Xie and Chen, 2018).

Poor housing affordability has negative effects on the social integration of migrants (Quandt et al., 2015). Housing affordability refers to the ability of households to pay for housing without unduly restricting non housing consumption (Hancock, 1993). It is usually measured by price-to-income ratio, housing expenditure-to-income ratio, housing affordability index and residual income approach. Various factors influence housing affordability, including socioeconomic status (e.g. occupational status, income and education), life-cycle factors (e.g. age, marital status and family structure), systemic factors (e.g. house prices, interest rates and city size) (Constant et al., 2009; Duan, 2011) and housing characteristics (Kuang and Li, 2012). Specifically, people with wages and no children have high housing affordability (Wood and Ong, 2011). Low income, high land prices, mismatch between housing supply and demand, low housing finance capacity and incomplete housing planning can also lead to low housing affordability (Duan, 2011; Liu and Ong, 2021). In China, university graduates with extensive work experience, high wages and high school rankings were found to have high housing affordability (Li et al., 2017).

However, the impact of housing affordability on migration intentions

(especially *hukou* transfer intentions) has been underexamined. Although high incomes and superior public services may increase the willingness of migrant workers to settle down in large cities, rising house prices may jeopardise this willingness. As such, people need to spend much of their income on housing and reduce other expenses, thus lowering their standard of living (Dang et al., 2019; Rabe and Taylor, 2012). The following hypothesis is proposed.

H1: Housing affordability has a significant positive effect on migration intentions (settlement intention and *hukou* transfer intention) of married migrant workers.

Furthermore, although sporadic studies have indicated that migrants with high levels of social integration have high migration intentions (Gherghina et al., 2020; Tezcan, 2019; Toruńczyk-Ruiz and Brunarska, 2018; Wang, 2013), the mediating role of social integration in the relationship between housing affordability and migration intentions has yet to be investigated. As such, this study aims to fill this knowledge gap. The following hypothesis is proposed.

H2: Social integration acts as a mediating variable between housing affordability and migration intentions.

Accordingly, three pathways linking housing affordability, social integration and migration intentions were constructed, as illustrated in **Figure 1**.
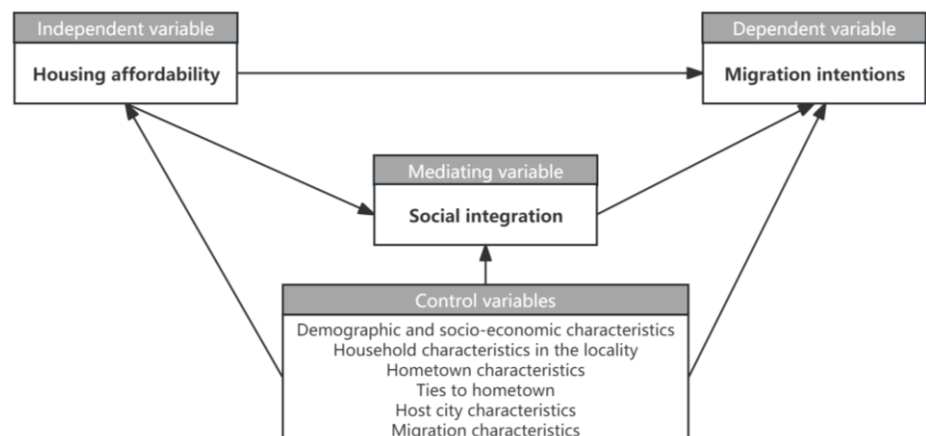

Figure 1. Conceptual framework (source: the authors).

3. Data and methods

3.1. Data

The data used in this study were obtained from the 2017 China Migration Dynamics Survey conducted by the National Health and Family Planning Commission of China. National data were employed for analysis. The process of data screening was as follows. Firstly, those who had been migrating for more than six months were screened. Secondly, the samples migrating for work were further screened based on the reason for their current mobility. Thirdly, married migrant workers were screened. A valid sample size of 106,161 was obtained.

Regional development level was measured using the Regional Development and Livelihood Index (DLI) (China Government Portal, "2013 Regional Development and Livelihood Index (DLI) Statistical Monitoring Results", web

address link: http://www.gov.cn/xinwen/2014-12/31/content_2798811.htm) published by the National Bureau of Statistics of China in 2014. This index was also employed by other researchers such as Cui et al. (2022). Based on DLI, regions in China were classified into three categories, namely, low, medium and high levels of development. **Figure 2** shows the sample distribution among inflow regions with three levels of development. The largest proportion of respondents (45%) were distributed in the regions with low levels, i.e. the western, northwest, northeast and parts of the southwest regions.
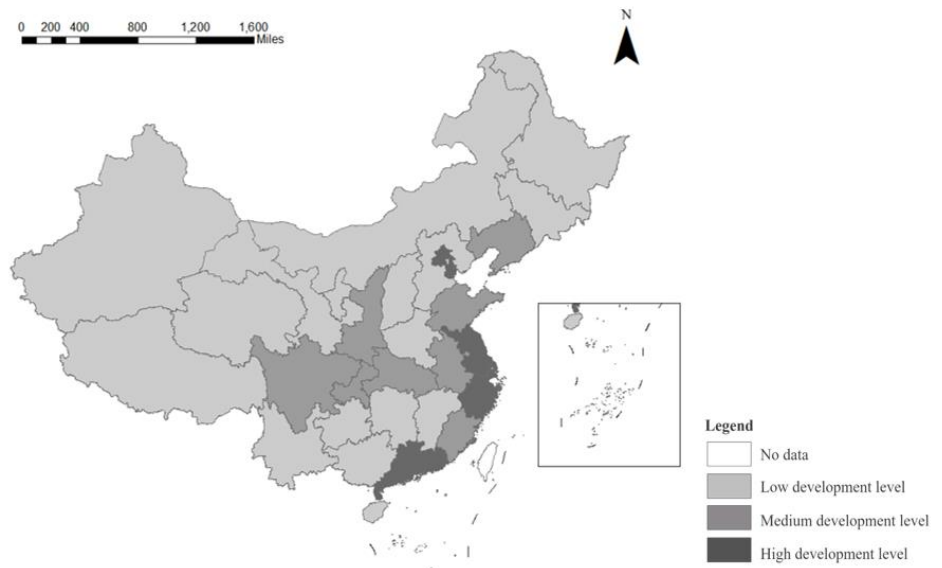

Figure 2. Study area (source: the authors).

3.2. Methods

3.2.1. Structural equation modelling approach

The SEM approach is a statistical technique that uses a combination of confirmatory factor analysis (CFA) and path analysis (Acock, 2013). SEM has distinct advantages over simple regression analysis, including: (1) implying the mediating variables in the model; (2) decomposing the total effect into direct and indirect effects; (3) accounting for the measurement error in all observed variables to ensure accuracy, and (4) identifying causal relationships rather than simple regression coefficients (Kline, 2023).

This model generally consists of two components: (1) the measurement model, which defines unobservable latent variables in terms of one or more observed variables, and (2) the structural model, which measures the relationships between latent variables. SEM estimates the direct, indirect and aggregate effects between variables. Variables in the model can be divided into endogenous and exogenous ones. In a causal system, the values of endogenous variables are determined by the states of exogenous variables, while exogenous variables are not affected by other variables (Pearl, 2000). The measurement model and structural model of this study were illustrated in **Figure 3**. In this study, CFA was used to test the validity of the measurement model. The metrics included average variance extracted (AVE) and construct reliability (CR). Adequate convergence was indicated if these metrics were

greater than 0.5 and 0.7, respectively (Hong and Jeon, 2015). Regarding structural models, the AMOS software provides five methods to estimate the structural equations, of which maximum likelihood is the default parameter estimation method. However, it is used only when the variables follow a multivariate normal distribution (DiStefano, 2002). The generalised least squares (GLS) can be used if the observed data are large but do not satisfy a multivariate normal distribution (Ejdys and Gulc, 2020; Hakim and Susanti, 2017; Tsutsumi and Seya, 2008).
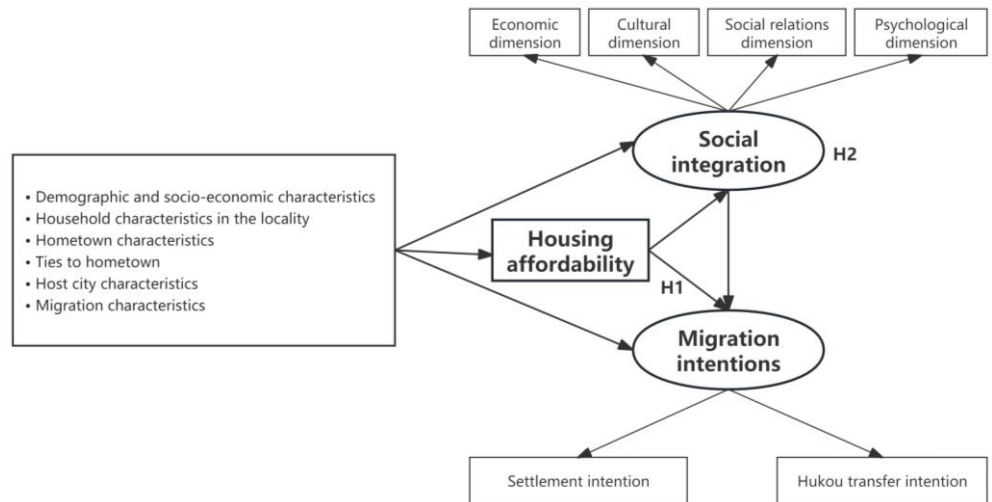

Figure 3. The measurement model and structural model (source: the authors).

Social integration and migration intentions have multiple aspects, thus leading to a systemic complexity when investigating the impact of housing affordability on four-dimensional social integration and two-dimensional migration intentions, as well as the mediating role of social integration. Hence, the SEM approach was employed to investigate the complex relationships among housing affordability, four-dimensional social integration and migration intentions (settlement intention and *hukou* transfer intention) simultaneously.

3.2.2. Model constructs

As shown in **Table 1**, the migration intentions of married migrant workers were measured by two variables, i.e. settlement intention and *hukou* transfer intention (Gu et al., 2019; Lin and Zhu, 2016). Housing affordability was measured by the housing expenditure-to-income ratioIt is the proportion of housing cost (usually mortgage payments or rent) in relation to income. Housing is regarded as unaffordable if the cost of housing exceeds a certain percentage (usually 25% or 30%) of household income (Burke and Ralston, 2004). The threshold of 0.3 was used. This threshold has frequently been used to discuss the housing affordability issues in China (Cai and Lu, 2015; Chen et al., 2010; Fang et al., 2016). Based on a multidimensional perspective, social integration was measured by four dimensions of variables, i.e., socio-economic integration, cultural integration, social relations integration and psychological integration (Burgoon, 2014; Grzymala-Kazlowska, 2016; Tian et al., 2019; Yue et al., 2013). Specifically, the economic dimension (perceived incomes compared with local people), cultural dimension (attitudes toward customs and habits of hometowns) and psychological dimension (belief about whether accepted

by local people) are subjectively measured, while social relationship dimension (participation in local social activities and public affairs) is objectively measured.

Table 1. Model constructs.

Variables		Content	Sources
1. Housing affordability	Housing expenditure-to-income ratio	If average monthly housing expenditure (rent/mortgage) to household income in the locality > 0.3, there is housing affordability difficulty. (0 = with difficulty; 1 = no affordability difficulty).	Burke and Ralston, 2004; Cai and Lu, 2015; Chen et al., 2010; Fang et al., 2016
2. Social Integration*	(1) Economic integration (0, 1)	Household income lower than others in the locality (0 = lower than others; 1 = equal to or higher than others).	Tezcan, 2019; Tian et al., 2019; Yue et al., 2013; Burgoon, 2014; Grzymala-Kazlowska, 2016
	(2) Cultural integration (1–4)	'It is important to follow the customs and habits of my hometown' (1 = totally agree, 2 = agree, 3 = disagree, 4 = totally disagree).	Yang, 2013; Junger-Tas, 2001; Tian et al., 2019; Yue et al., 2013; Burgoon, 2014; Grzymala-Kazlowska, 2016
	(3) Social relations integration (0, 1)	a. Participation in local social activities and public affairs (0 = no; 1 = yes) b. Who do you most frequently interact with in the locality (excluding customers & relatives) (0 = migrants; 1 = local people)	Chen and Wang, 2015; Gherghina et al., 2020; Toruńczyk-Ruiz and Brunarska, 2018; Wang, 2013; Liu et al., 2017; Chang, 2020; Simmel, 2023
	(4) Psychological integration (1–4)	a. 'I am a local people' (1 = totally disagree, 2 = disagree, 3 = mostly agree, 4 = totally agree). b. 'Locals regard me as one of them' (1 = totally disagree, 2 = disagree, 3 = mostly agree, 4 = totally agree).	Gherghina et al., 2020; Liu et al., 2017; Simmel, 2023; Tian et al., 2019; Yue et al., 2013; Burgoon, 2014; Grzymala-Kazlowska, 2016
3. Migration intentions	(1) Settlement intention	Do you plan to continue to stay in this city in the future (0 = no; 1 = yes).	Lin and Zhu, 2016; Gu et al., 2019; Tang and Hao, 2018; Xie and Chen, 2018; Tao et al., 2015; Liu et al., 2017
	(2) *Hukou* transfer intention	Are you willing to transfer your hukou to this city if you meet the policy requirements (0 = no; 1 = yes).	Lin and Zhu, 2016; Gu et al., 2019

Note: * The four dimensions of social integration were coded as 0 or 1, or 1 to 4. The lower the value, the lower levels of social integration.

Individual-, household- and city-level factors that had frequently been evidenced to affect housing affordability, social integration and migration intentions of migrants were also included for analysis: (1) demographic and socio-economic characteristics (Chen and Wang, 2015; Chen, 2011; Cheng et al., 2023; Dongliang, 2016; Huang et al., 2018; Liu et al., 2012; Liu et al., 2017; Tao et al., 2022; Wu et al., 2023; Wang et al., 2022), including gender, age, hukou, education level, local insurance, type of employment and labour contract; (2) household characteristics in the locality (Fan and Li, 2020; Lin and Zhu, 2016; Lin et al., 2023; Tang and Hao, 2018; Xie and Chen, 2018; Wu et al., 2023), including dual-career family status, household size, ownership of current housing, type of housing (formal vs. informal), resident committee and household income-to-expenditure ratio; (3) hometown characteristics (Cui et al., 2022; Wu et al., 2023), including development level and administrative level; (4) ties to hometown (Guan et al., 2013; Wu et al., 2023), including whether they own rural homesteads, whether they have difficulties in caring for the elderly in their hometown, whether they have difficulties in caring for their children in their hometown, whether the spouse felt lonely in their hometown

and whether they lacked labour for land cultivation; (5) host city characteristics (Khoo and Mcdonald, 2008; Tang and Hao, 2018; Xie and Chen, 2018; Wu et al., 2023; Zhu and Chen, 2010), including development level and administrative level, and (6) migration characteristics (Chen and Wang, 2015; Liu et al., 2023; Zhang and He, 2023), including migration distance, duration of stay in the locality, number of cities to which they have migrated, and duration of mobility since they leave the places of origin for job opportunities for the first time.

As shown in **Figure 3**, we hypothesized that housing affordability has a significant positive effect on social integration of married migrant workers (Quandt et al., 2015; Harris et al., 2019; Lin et al., 2023), and also has a significant positive effect on migration intentions (Liu et al., 2017; Xie and Chen, 2018) (H1). Furthermore, we hypothesized that social integration has a significant positive effect on migration intentions (Gherghina et al., 2020; Tezcan, 2019; Toruńczyk-Ruiz and Brunarska, 2018; Wang, 2013), so social integration acts as a mediating variable between housing affordability and migration intentions (H2) in this model. Finally, based on the push–pull migration theory (Lee, 1966) and the new economics of migration (Stark and Bloom, 1985), the model simultaneously measures factors that cover the influences of the characteristics of the place of inflow and the place of origin. These factors are used as observed variables in the model to simultaneously control the effects at the individual, household and district levels.

4. Descriptive findings

4.1. Demographic and socioeconomic characteristics

Among the respondents, more than 57% were male (**Table 2**). In addition, more than half of them were older than 40 years old. More than 60% had an educational attainment of middle school and below, thus echoing the findings of Liu et al. (2020b). The largest proportion of these migrants were employees (47%), followed by self-employed migrants (36%). Only 31% of them signed labor contracts with employers. Furthermore, 27% had local insurance. Notably, 57% of the migrant households were conjugal or nuclear families (≤3 family members) in the inflow city. In addition, 72% of them were dual-career families in the locality.

Regarding migration characteristics, 45% of the respondents had stayed in the locality for more than 10 years. On average, they had migrated to two cities. The duration of migration was 16 years. Half of the respondents experienced interprovincial migration. Although 79% of the respondents had agricultural *hukou*, only 60% of them owned homesteads in their hometowns. Notably, 32% of the respondents had difficulty caring for their elderly relatives, and 10% had difficulty caring for their children in their hometown.

Table 2. Descriptive statistics.

Variables		Value	Variables		Value
Gender	Male	57%		Inter-provincial	50%
	Female	43%	Migration distance	Intra-provincial	33%
Age	≤30	4%		Intra-city	17%
	31–39	40%		0–10	55%
	≥40	56%	Duration of stay (years)	11–20	35%
Type of hukou	Agricultural	79%		≥20	10%
	Non-agricultural	21%	Migration history (number of cities)		2
	Primary school and below	18%			
Education	Middle school	46%	Duration of migration (years)		16
	High school to junior college	21%	Household size	1–3	57%
	College and above	15%		≥4	43%
	Employee	47%	Dual-career family		72%
Type of employment	Employer	6%	Own rural homesteads		60%
	Self-employed	36%	Difficulties of caring for the elderly in hometown		32%
	Others	11%	Difficulties of caring for children in hometown		10%
With local insurance		27%	Spouse feel lonely in hometown		2%
With labour contract		31%	Lack of labour for land cultivation		15%

4.2. Housing characteristics, social integration and migration intentions

Regarding housing characteristics and housing affordability, only 26% of the respondents had ownership of their current housing in the locality, and more than 59% of them lived in private rental housing. Most of the respondents lived in communities with a residence committee (**Table 3**). According to the 30% threshold of housing expenditure-to-income ratio, 10% of the respondents experienced housing affordability difficulties (**Figure 4**).

Based on the data in **Figure 4**, it was clear that among all four dimensions of social integration, the level of psychological integration was the highest, followed by economic integration, social relations integration and cultural integration. About 77% of the respondents perceived themselves as local people, while about 93% reported that they were accepted by the locals. Married migrant workers generally had high intentions to settle in the locality. By contrast, their intention to transfer their *hukou* to the locality was much lower. Only about 40% of the respondents were willing to transfer their *hukou* to the local city. The gap between high settlement intention and low *hukou* transfer intention was worth further investigation.

Table 3. Housing characteristics.

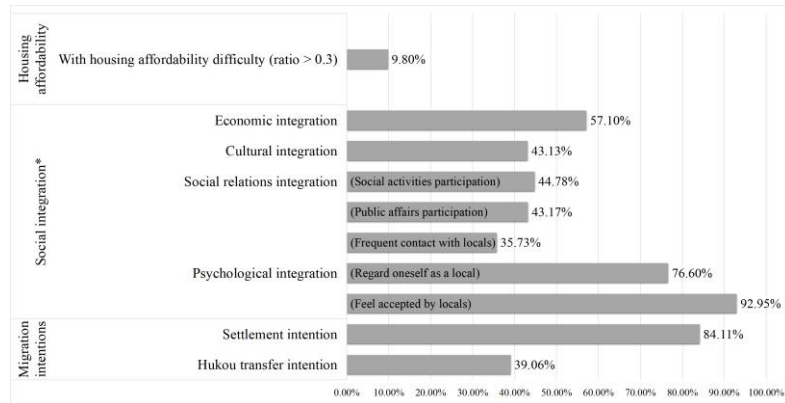| Variables	Value
Own current housing	25.92%
Type of housing (private rental housing)	58.78%
Have resident committee (Yes)	73.36%
Average monthly housing expenditure (RMB)	966.47
Average monthly household income (RMB)	7933.61
Housing expenditure-to-income ratio	12.18%

Figure 4. Housing affordability, social integration and migration intentions (source: the authors).

Note: * Economic integration: perceived income not lower than others in the locality; cultural integration: regard it not important to follow the customs and habits of hometown; social relations integration: participate in local social activities and public affairs, and most frequently interact with local people; psychological integration: deem oneself as local people, and feel accepted by local society.

5. SEM Results

5.1. Model estimation

CFA and GLS were used to estimate the validity and fitness of the SEM model. CFA was conducted to test the validity of the two latent variables of this study. As shown in **Table 4**, AVE > 0.5 and CR > 0.7. The validity of social integration and migration intentions was good. The GLS method (through AMOS 22.0 software) was employed to test the goodness of fit of the model because the model had many dummy variables. Multivariate normality was not satisfied in this assessment (**Table 5**). Given the large sample size of this study, the goodness of fit of the model was evaluated by the following indices: (1) goodness of fit index (GFI) and adjusted goodness of fit index (AGFI), which have been commonly used as indicators of goodness of fit. The model fits well when the value of these indices is greater than 0.9. As shown in **Table 5**, GFI and AGFI met the criteria; (2) Root mean squared error of approximation (RMSEA) has been widely used as well. If the value is below 0.05, the model has a very good fit. The RMSEA of this model was 0.048 < 0.05, thus indicating a very good fit; and (3) Parsimony fit index (PGFI) was also used. The PGFI of this model was 0.733 > 0.5, thus indicating a good model fit. In summary, the model was effectively suitable for this study.

Table 4. Validity of constructs.

Variables (Cut-off value)	Social integration	Migration intentions
AVE (>0.5)	0.5203	0.5438
CR (>0.7)	0.7014	0.7146

Table 5. Goodness of fit of the model.

Model fit index	GFI	AGFI	RMSEA	PGFI
Value	0.934	0.915	0.048	0.733
Cut-off value	>0.900	>0.900	<0.050	>0.500

5.2. Effects between housing affordability, social integration and migration intentions

The direct effects between the three endogenous variables (i.e., housing affordability, social integration and migration intentions) are shown in **Figure 5**. **Table 6** presents the total, direct and indirect effects between the three variables. As expected, a significantly positive correlation between housing affordability and social integration was identified. Specifically, married migrant workers without any housing affordability difficulties (housing expenditure-to-income ratio no higher than 0.3) tended to have high levels of social integration in the local society.
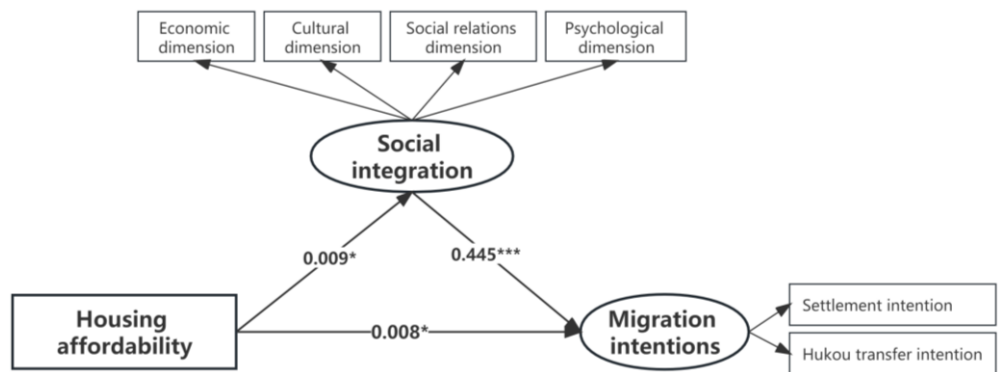

Figure 5. Direct effects between endogenous variables (source: the authors).

Note: *significant at the 90% confidence level, **significant at the 95% confidence level, ***significant at the 99% confidence level.

Table 6. Effects between housing affordability, social integration and migration intentions.

		Effects of housing affordability	Effects of social integration
Social integration	Total	0.009*	-
	Direct	0.009*	-
	Indirect	-	-
Migration intentions	Total	0.012**	0.445***
	Direct	0.008*	0.445***
	Indirect	0.004*	-

Note: *significant at the 90% confidence level, **significant at the 95% confidence level, ***significant at the 99% confidence level; '-' indicates no path coefficients.

As shown in **Figure 5**, social integration could significantly increase the migration intentions of married migrant workers, thus echoing previous findings (Wang, 2013; Tezcan, 2019; Toruńczyk-Ruiz and Brunarska, 2018; Gherghina et al., 2020). Furthermore, housing affordability could significantly increase the migration intentions of these workers, which was consistent with the findings of Gu, Liu and Shen (2019). The analysis revealed that housing affordability had a significantly indirect effect on the migration intentions of married migrant workers. In this regard, H1 was validated. The observations suggested that social integration had a mediating effect in the pathway where housing affordability influenced migration intentions. The mediating effect of social integration was further examined using bootstrapping method, as will be discussed in section 5.3 (H2).

5.3. Factors affecting housing affordability, social integration and migration intentions

Regarding the effects of demographic and socio-economic variables, males tended to have high levels of social integration and low levels of migration intentions (**Table 7**). Older ones tended to have high housing affordability in the locality, whilst they had lower levels of social integration and were less likely to settle down or transfer their *hukou* to the locality. Since older migrants may hold traditional Chinese beliefs that one should return to one's roots (Wang et al., 2022), they are reluctant to settle down in the locality or transfer their *hukou*. In contrast, the younger the migrants, the easier it is for them to accept change and adapt to competition. Younger cohorts are more motivated to live or settle themselves in the places where they flow (Cheng et al., 2023), although they may find it difficult to afford the down payment and/or mortgage loans, and the private rental housing (Mo et al., 2023), restricted by wealth accumulation.

Notably, those with low levels of educational attainment and without labour contracts seemed have no difficulty in housing affordability. They might employ certain housing consumption strategies (e.g. live in housing with inadequate conditions) to overcome issues in housing affordability. Some of them were residing in working places or informal housing with very low housing costs. As expected, those with high levels of education and enjoyed local insurance were likely to integrate into the locality and had high migration intentions to the locality. Consistent with previous findings (Wang et al., 2022), those with agricultural *hukou* tended to have low levels of social integration and migration intentions. This trend could be largely due to their relatively low socioeconomic status in urban society. Another consideration was the close relationship between agricultural *hukou* and the possession of arable land and homestead in the hometown, which was a pivotal asset for people with agricultural *hukou* in China. Migrants with agricultural *hukou* were reluctant to migrate (settle down and transfer *hukou*) to the locality at the cost of losing arable land or homestead in their hometown. This trend was validated by the significantly negative effect of owning rural homesteads on social integration and migration intentions.

Compared with non-dual-career and smaller family size migrant households, dual-career migrant households and those with a larger family size, who were more stable, were more willing to settle down and transfer their *hukou* to the locality. Notably, they had lower levels of social integration, which might be attributed to the large family size in the locality where they spent much time with family members. Those living with many family members tended to have high housing affordability. They usually stayed in the locality for a longer time with more capital accumulations (e.g., social capital, wealth) than smaller migrant households. Furthermore, those with high income-to-expenditure ratio tended to have high housing affordability. These individuals had high levels of social integration but low levels of migration intentions. The reasons are two folded: (1) some of them had high incomes, and some of them were savings oriented. Savings-oriented migrant workers might migrate to other places or return to the hometown in the long run (Wang et al., 2022; Zhang and He, 2023); and (2) the cost of informal housing was generally lower than

that of formal housing. Residing in informal housing could reduce the financial burden in the locality.

Table 7. Factors affecting housing affordability, social integration and migration intentions.

Demographic and socio-economic characteristics			
	Housing affordability	Social integration	Migration intentions
Gender (male)	0.000	0.045***	-0.009*
Age	0.011***	-0.022***	-0.064***
Hukou (agricultural)	0.002	-0.065***	-0.052***
Education level	–0.027***	0.241***	0.047***
Local insurance (yes)	–0.001	0.134***	0.069***
Type of employment (employees)	0.054***	–0.089***	0.013**
Labor contract (yes)	–0.010**	0.095***	–0.013*
Household characteristics in the locality			
	Housing affordability	Social integration	Migration intentions
Dual-career family	–0.011***	–0.038***	0.034***
Household size	0.038***	–0.006	0.024***
Ownership of current housing (yes)	–0.095***	0.185***	–0.063***
Informal housing	0.009***	–0.010**	0.000
Resident committee (yes)	–0.068***	0.100***	–0.038***
Household income-to-expenditure ratio	0.129**	0.013***	–0.016**
Hometown characteristics			
	Housing affordability	Social integration	Migration intentions
Development level of places of origin	–0.014***	0.040**	–0.101**
Administrative level of places of origin	–0.002	0.009*	–0.031***
Ties to hometown			
	Housing affordability	Social integration	Migration intentions
Own rural homesteads	0.015**	–0.014**	–0.063**
Have difficulties in caring for the elderly	0.005	0.042***	–0.011**
Have difficulties in caring for children	–0.009***	0.050***	0.023***
Spouse feels lonely in hometown	0.006*	0.017***	0.015***
Lack of labour for land cultivation	–0.001	0.031***	–0.005
Host city characteristics			
	Housing affordability	Social integration	Migration intentions
Development level of places of inflow	0.004	–0.164***	0.292***
Administrative level of places of inflow	–0.047***	–0.031***	0.169***
Migration characteristics			
	Housing affordability	Social integration	Migration intentions
Migration distance	–0.022***	–0.114***	0.029***
Duration of stay in the locality	0.004	0.061***	0.035***
Migration history (number of cities)	0.005	–0.017***	–0.003
Duration of migration	0.005	0.047***	0.028***

Note: *significant at the 90% confidence level, **significant at the 95% confidence level, ***significant at the 99% confidence level; housing affordability (1 = no difficulty; 0 = have difficulty).

Housing ownership might correspond with high housing costs, thus leading to housing affordability difficulty. On the other hand, the ownership of current housing could significantly increase social integration, thus echoing the findings of previous studies (Lin et al., 2023). Residing in a neighborhood with the resident committee could significantly increase the levels of social integration.

Those originating from more developed regions with high administrative levels (e.g. capital of the province) were more likely to integrate into the local society. However, they were relatively reluctant to settle down or transfer their *hukou* to the locality. They might plan to return to the hometown in the long run (Wang et al., 2022). Furthermore, long migration distances and frequent migrations significantly decreased the level of social integration. Long migration distances indicated significant differences in cultures, habits and dialects, thus resulting in increased difficulties in social integration, thus being consistent with previous findings (Zhang and He, 2023). Frequent migration (having migrated to a large number of cities) could indicate the preferred pattern of the step-wise migration of migrant workers. These individuals might migrate to some other cities in the future. However, a long duration of stay and migration could increase the levels of social integration. These workers were willing to settle and transfer their *hukou* to the locality. They were also familiar with the local society and accumulated high capital (social, cultural and wealth), thus decreasing the barriers of integrating into the locality (Zhang and He, 2023; Liu et al., 2023).

5.4. Mediating effects of social integration

This study applied the bootstrapping method to test the mediating effect of social integration. The bootstrapping method has been widely employed to test the mediating effects in analyses (Coutts et al., 2019; González-Ortega et al., 2020; Kirst et al., 2020). The parameters were estimated using GLS through AMOS 22.0 software. The model was proven to have a good fit, with GFI = 0.934 (>0.900), AGFI = 0.915 (>0.900), RMSEA = 0.048 (<0.050) and PGFI = 0.733 (>0.500).

Housing affordability had a significant indirect effect (0.004) on married migrant workers' migration intentions through social integration (**Table 8**). The direct effect had a statistically significant value of 0.008, thus indicating that social integration played a partially mediating role between housing affordability and migration intentions. Notably, 0 fell outside the confidence interval. The results obtained through the percentile bootstrap and bias-corrected bootstrap were almost identical, thus confirming the stability of the results. Hence, H3 was validated. This finding provided strong evidence that social integration imposed direct effects on settlement intention and *hukou* transfer intention (Wang, 2013; Tezcan, 2019; Toruńczyk-Ruiz and Brunarska, 2018; Gherghina et al., 2020). Housing affordability had a significantly indirect effect on the migration intentions of married migrant workers through social integration. This finding was a significant contribution of this study.

Table 8. Mediating effect of social integration.

Social integration (Mediating variable)	Estimates	Migration intentions						
		Bias-corrected 95% CI		*P* value	Percentile 95% CI		*P* value	
		Lower	Upper		Lower	Upper		
Total effect	0.012	0.002	0.021	0.033	0.002	0.022	0.021	
Direct effect	0.008	0.001	0.017	0.083	0.001	0.018	0.084	
Indirect effect	0.004	0.001	0.008	0.064	0.001	0.008	0.067	

6. Discussion and conclusions

The social integration of migrant workers has garnered significant global attention and is widely recognized as a crucial determinant of migrants' settlement intentions. In the context of the household registration system (*hukou*) and family migration in China, the influence of social integration on the settlement and *hukou* transfer intentions of married migrant workers remains insufficiently examined. Additionally, the impact of housing on migration intentions of migrants is becoming increasingly important and is considered not weaker than the impact of *hukou* system in recent years. Consequently, there is a need for further exploration of the influence of housing affordability on the social integration and migration intentions of married migrant workers.

This study fills the knowledge gap from the following four aspects: (1) settlement intention and hukou transfer intention were employed simultaneously to reflect the migration intentions of married migrant workers through SEM modelling; (2) the mediating role of social integration in the relationship between housing affordability and migration intentions was investigated using the bootstrapping method; (3) the effects of the regional characteristics of outflow and inflow places were examined in the SEM model. Further, this study measured the social integration of married migrant workers in a comprehensive manner, i.e. based on four dimensions (economic, social relation, cultural and psychological). The following findings are noteworthy.

Firstly, married migrant workers originating from less developed areas are less likely to experience housing affordability difficulties in the locality, which is contrary to our expectations. It may be due to the coping strategies that they employ. On the one hand, migrant workers are generally at a relatively disadvantaged position in the locality in terms of *hukou* status, social networks, asset accumulation and language. These disadvantages may limit their housing consumption in the locality. They need to save money for expenses of other daily items. On the other hand, this outcome may be due to migrant workers' settlement intention. Many of them consider the city of inflow as a place to work rather than a home (Zhang and Chen, 2014; Zheng et al., 2009). Being savings-oriented in the locality, low-income migrants may minimise their housing consumption (Zhang and Chen, 2014; Zheng et al., 2009), and opt to live in places with relatively low rents, e.g. free dormitories or workplaces (Tao et al., 2014). This finding deserves the attention of policy makers because the value of housing cost affordability may be deceptive. Adequate housing should be provided to migrant workers not only in terms of affordability but also

conducive conditions.

Secondly, the levels of cultural integration and social relations integration are not high among married migrant workers, while the levels of psychological integration are relatively high. Over half of the respondents do not perceive their incomes as lower than those of local residents. Housing affordability can significantly increase the levels of comprehensive social integration of married migrant workers in the locality. Given that housing affordability can to some extent reflect their economic situation, higher housing affordability may indicate a potentially better economic capacity. Improved economic standing can significantly provide important favorable conditions for their integration into the local society, especially in the economic dimension which is considered the most important factor in influencing social integration (Entzinger and Biezeveld, 2011; Yue et al., 2013; Chen and Wang, 2015). Besides its direct effect, housing affordability imposes an indirect effect on the migration intentions (settlement intention and *hukou* transfer intention) of married migrant workers through the levels of social integration. This finding extends the results of previous studies. This research shows that social integration partially mediates the relationship between housing affordability and migration intentions. This trend implies that the higher the housing affordability of migrants is, the higher their level of social integration will be. Moreover, social integration has a significantly positive effect on migrants' migration intentions. Therefore, their settlement intention and *hukou* transfer intention significantly increase.

Thirdly, settlement intention does not necessarily result in a *hukou* transfer intention among married migrant workers, although the desire to settle in a particular locality forms the foundation for *hukou* transfer intention. Although over 84% of married migrant workers intended to settle locally, only 40% were willing to transfer their *hukou* to the local city. *Hukou* transfer intention is influenced not only by local *hukou* policies but also by household strategies. On the one hand, those living in more developed regions have higher *hukou* transfer intentions than those who live in less developed regions, due to employment opportunities and conducive environments for children (Khoo and Mcdonald, 2008). However, acquiring local *hukou* is challenging for most migrant workers in first-tier cities (e.g., Beijing, Shanghai), due not only to the barriers presented by urban *hukou* policies (Zhou et al., 2022) but also to the high cost of living and career expectations in these cities (Tian and Xu, 2023). On the other hand, the impacts of ties to hometown on married migrant workers' social integration and migration intentions are worth noting. As expected, owning rural homestead and agricultural *hukou* are negatively associated with social integration and migration intentions. Rural homesteads not only provide housing for rural residents but also play an important role in sociocultural association, thus leading to hometown attachment, as characterised by a sense of belongingness to one's hometown (Guan et al., 2013). Therefore, having a rural homestead in one's hometown is not conducive to migrant workers developing a sense of belongingness to the host cities.

Lastly, a significant positive correlation exists between the status of split households and migration intentions of married migrant workers, which is somewhat surprising. This outcome may be caused by the influence of life cycle of married

migrant workers. Married migrant workers are usually middle-aged (with 96% older than 30, and 56% older than 40). They tend to make migration decisions based on the principle of maximising the utility of the entire family (Tao et al., 2022). Children play a decisive role in the settlement intentions of migrants (Wang et al., 2019). Married migrant workers with family members (especially children and spouse) in the hometown tend to maximize the utility of children's education and family reunion in urban areas through integrating to the local society and transferring *hukou* to the locality.

The trend of family migration poses challenges for host city governments. The findings of this study indicate that increased housing affordability and social integration play pivotal roles in boosting the migration intentions of married migrant workers. In this regard, it is crucial to facilitate their integration into the local society, particularly in terms of culture and social relations integration, and increase their housing affordability. Local governments need to gradually narrow the gaps between migrants and local residents in terms of education, healthcare, public service, and social security. Multiculturalism and communities should play a role in strengthening communications between migrants and local residents. Increasing the provision of affordable housing for migrant workers is essential. Further, local governments and non-profit organizations should incentivize the skill development of migrant workers, thus facilitate their income growth.

The limitations of this study are as follows. (1) Housing affordability was measured by the single indicator of housing expenditure-to-income ratio in this study. However, cost may only partially reflect housing affordability, as housing trade-offs have frequently been made (Cai and Lu, 2015). Even if the cost of housing is not an excessive financial burden for households, housing should not be considered affordable if it is achieved at the cost of sacrificing other basic housing needs such as adequate living space or suitable commuting costs. Single-indicator measurements may result in misleading conclusions that are not conducive to policy formulation. Therefore, other attributes of housing, such as location, facilities and living space, should be examined in the future. (2) This study focused on married migrant workers because of the increasing trend of family migration in China. Other categories of migrants are worth analysing for comparison in future studies. For example, as labour and talent are crucial to the development of cities and countries, the housing conditions and migration intentions of the new-generation migrant workers and talent can be examined in the context of ageing population and upgrading of urban industries.

References

Acock, A. (2013). Discovering Structural Equation Modeling Using Stata. Stata Press books. https://doi.org/10.1080/10705511.2014.935845

Burgoon, B. (2014). Immigration, Integration, and Support for Redistribution in Europe. World Politics, 66(3), 365–405. https://doi.org/10.1017/s0043887114000100

Burke, T., Ralston, L. (2004). Measuring housing affordability. Available online: https://www.ahuri.edu.au/sites/default/files/migration/documents/AHURI_RAP_Issue_45_Measuring_housing_affordability.pdf (accessed on 8 January 2024).

Cai, W., & Lu, X. (2015). Housing affordability: Beyond the income and price terms, using China as a case study. Habitat International, 47, 169–175. https://doi.org/10.1016/j.habitatint.2015.01.021

Chang, H.-C. (2020). Do gender systems in the origin and destination societies affect immigrant integration? Vietnamese marriage migrants in Taiwan and South Korea. Journal of Ethnic and Migration Studies, 46(14), 2937–2955. https://doi.org/10.1080/1369183x.2019.1585014

Chen, J., Hao, Q., & Stephens, M. (2010). Assessing Housing Affordability in Post-reform China: A Case Study of Shanghai. Housing Studies, 25(6), 877–901. https://doi.org/10.1080/02673037.2010.511153

Chen, M., Gong, Y., Lu, D., et al. (2019). Build a people-oriented urbanization: China's new-type urbanization dream and Anhui model. Land Use Policy, 80, 1–9. https://doi.org/10.1016/j.landusepol.2018.09.031

Chen, M., Liu, W., & Lu, D. (2016). Challenges and the way forward in China's new-type urbanization. Land Use Policy, 55, 334–339. https://doi.org/10.1016/j.landusepol.2015.07.025

Chen, Y. (2011). Occupational Attainment of Migrants and Local Workers: Findings from a Survey in Shanghai's Manufacturing Sector. Urban Studies, 48(1), 3–21. https://doi.org/10.1177/0042098009360685

Chen, Y., & Wang, J. (2015). Social integration of new-generation migrants in Shanghai China. Habitat International, 49, 419–425. https://doi.org/10.1016/j.habitatint.2015.06.014

Cheng, W., Cheng, S., Wu, H., et al. (2023). Homesteads, Identity, and Urbanization of Migrant Workers. Land, 12(3), 666. https://doi.org/10.3390/land12030666

Constant, A. F., Roberts, R., & Zimmermann, K. F. (2009). Ethnic Identity and Immigrant Homeownership. Urban Studies, 46(9), 1879–1898. https://doi.org/10.1177/0042098009106022

Coutts, J. J., Hayes, A. F., & Jiang, T. (2019). Easy Statistical Mediation Analysis With Distinguishable Dyadic Data. Journal of Communication, 69(6), 612–649. https://doi.org/10.1093/joc/jqz034

Cui, J., Cui, C., Mu, X., et al. (2022). Home in the big city: does place of origin affect homeownership among the post-80s generation in Shanghai. Housing Studies, 37(9), 1546–1565. https://doi.org/10.1080/02673037.2020.1853070

Dang, Y., Chen, Y., & Dong, G. (2019). Settlement intention of migrants in the Yangtze River Delta, China: The importance of city-scale contextual effects. Population, Space and Place, 25(8). Portico. https://doi.org/10.1002/psp.2270

DiStefano, C. (2002). The Impact of Categorization With Confirmatory Factor Analysis. Structural Equation Modeling: A Multidisciplinary Journal, 9. https://doi.org/10.1207/S15328007SEM0903_2

Dongliang, Y. (2016). A Comparative Study on Settlement Intention of the Floating Population in Northeast China. Population Research, 38(5), 34–44.

Duan, M. (2011). Investigation on housing affordability in Lanzhou, Northwest China. International Journal of Housing Markets and Analysis, 4(2), 180–190. https://doi.org/10.1108/17538271111137958

Dustmann, C. (1996). The social assimilation of immigrants. Journal of Population Economics, 9(1), 37–54. https://doi.org/10.1007/pl00003825

Ejdys, J., & Gulc, A. (2020). Trust in Courier Services and Its Antecedents as a Determinant of Perceived Service Quality and Future Intention to Use Courier Service. Sustainability, 12(21), 9088. https://doi.org/10.3390/su12219088

Entzinger, H., Biezeveld, R. (2011). Benchmarking in Immigrant Integration. European Research Centre on Migration and Ethnic Relations (ERCOMER), Erasmus University Rotterdam.

Fan, C. C., & Li, T. (2020). Split Households, Family Migration and Urban Settlement: Findings from China's 2015 National Floating Population Survey. Social Inclusion, 8(1), 252–263. https://doi.org/10.17645/si.v8i1.2402

Fang, H., Gu, Q., Xiong, W., et al. (2016). Demystifying the Chinese Housing Boom. NBER Macroeconomics Annual, 30(1), 105–166. https://doi.org/10.1086/685953

Gherghina, S., Plopeanu, A.-P., & Necula, C.-V. (2020). The Impact of Socio-Cultural Integration on Return Intentions: Evidence from a Survey on Romanian Migrants. Journal of Immigrant & Refugee Studies, 18(4), 515–528. https://doi.org/10.1080/15562948.2020.1735599

González-Ortega, I., González-Pinto, A., Alberich, S., et al. (2020). Influence of social cognition as a mediator between cognitive reserve and psychosocial functioning in patients with first episode psychosis. Psychological Medicine, 50(16), 2702–2710. https://doi.org/10.1017/s0033291719002794

Gordon, M. M. (1964). Assimilation in American Life. Oxford University Press.

Grzymala-Kazlowska, A. (2016). Social Anchoring: Immigrant Identity, Security and Integration Reconnected? Sociology, 50(6), 1123–1139. https://doi.org/10.1177/0038038515594091

Gu, H., Liu, Z., & Shen, T. (2019). Spatial pattern and determinants of migrant workers' interprovincial hukou transfer intention in China: Evidence from a National Migrant Population Dynamic Monitoring Survey in 2016. Population, Space and Place, 26(2). Portico. https://doi.org/10.1002/psp.2250

Guan, J., Huang, C., Hu, Y. (2013). The Affecting Factors of Farmers' Willingness of Rural Residential Land Circulation Based on Logistic Regression Model Under Microscopic Welfare Perspective. Economic Geography, 33(8), 128–133.

Hakim, L., Susanti, N., & -, U. (2017). Influence of Customer Relationship Management, Brand Equity, Perceived Product Quality, Perceived Price on Customer Value and Purchase Intention (Studies Philips Light Bulb in Batam). International Journal of Economics and Finance, 9(7), 122. https://doi.org/10.5539/ijef.v9n7p122

Hancock, K. E. (1993). "Can Pay? Won't Pay?" or Economic Principles of "Affordability." Urban Studies, 30(1), 127–145. https://doi.org/10.1080/00420989320080081

Harris, T., Dunton, G., Henwood, B., et al. (2019). Los Angeles housing models and neighbourhoods' role in supportive housing residents' social integration. Housing Studies, 34(4), 609–635. https://doi.org/10.1080/02673037.2018.1462308

Hong, J. Y., & Jeon, J. Y. (2015). Influence of urban contexts on soundscape perceptions: A structural equation modeling approach. Landscape and Urban Planning, 141, 78–87. https://doi.org/10.1016/j.landurbplan.2015.05.004

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. https://doi.org/10.1016/j.chieco.2010.09.007

Huang, X., Liu, Y., Xue, D., et al. (2018). The effects of social ties on rural-urban migrants' intention to settle in cities in China. Cities, 83, 203–212. https://doi.org/10.1016/j.cities.2018.06.023

Jia, Z., & Tian, W. (2010). Loneliness of left-behind children: a cross-sectional survey in a sample of rural China. Child: Care, Health and Development, 36(6), 812–817. Portico. https://doi.org/10.1111/j.1365-2214.2010.01110.x

Junger-Tas, J. (2001). Ethnic Minorities, Social Integration and Crime. European Journal on Criminal Policy and Research, 9(1), 5–29. https://doi.org/10.1023/A:1011210026339

Khoo, S.-E., Hugo, G., & McDonald, P. (2008). Which Skilled Temporary Migrants Become Permanent Residents and Why? International Migration Review, 42(1), 193–226. https://doi.org/10.1111/j.1747-7379.2007.00118.x

Kirst, M., Friesdorf, R., Ta, M., et al. (2020). Patterns and effects of social integration on housing stability, mental health and substance use outcomes among participants in a randomized controlled Housing First trial. Social Science & Medicine, 265, 113481. https://doi.org/10.1016/j.socscimed.2020.113481

Kline, R. B. (2023). Principles and practice of structural equation modeling. Guilford publications.

Kuang, W., Li, X. (2012). Does China face a housing affordability issue? Evidence from 35 cities in China. International Journal of Housing Markets and Analysis, 5(3), 272–288. https://doi.org/10.1108/17538271211243607

Lee, E. S. (1966). A theory of migration. Demography, 3(1), 47–57. https://doi.org/10.2307/2060063

Lewis, W. A. (1954). Economic Development with Unlimited Supplies of Labour. The Manchester School, 22(2), 139–191. Portico. https://doi.org/10.1111/j.1467-9957.1954.tb00021.x

Li, J., & Liu, Z. (2018). Housing stress and mental health of migrant populations in urban China. Cities, 81, 172–179. https://doi.org/10.1016/j.cities.2018.04.006

Li, L. H., Wu, F., Dai, M., et al. (2017). Housing affordability of university graduates in Guangzhou. Habitat International, 67, 137–147. https://doi.org/10.1016/j.habitatint.2017.07.007

Li, Q., Zhang, W., & Zhao, J. (2021). The longitudinal associations among grandparent–grandchild cohesion, cultural beliefs about adversity, and depression in Chinese rural left-behind children. Journal of Health Psychology, 26(1), 140–155. https://doi.org/10.1177/1359105318803708

Lin, L., & Zhu, Y. (2022). Types and determinants of migrants' settlement intention in China's new phase of urbanization: A multi-dimensional perspective. Cities, 124, 103622. https://doi.org/10.1016/j.cities.2022.103622

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, 1696–1709. https://doi.org/10.11821/dlxb201610003

Lin, S., Wu, F., Wang, Y., et al. (2023). Migrants' perceived social integration in different housing tenures in urban China. Geoforum, 139, 103693. https://doi.org/10.1016/j.geoforum.2023.103693

Liu, J., & Ong, H. Y. (2021). Can Malaysia's National Affordable Housing Policy Guarantee Housing Affordability of Low-Income Households? Sustainability, 13(16), 8841. https://doi.org/10.3390/su13168841

Liu, R., Li, T., & Greene, R. (2020a). Migration and inequality in rental housing: Affordability stress in the Chinese cities. Applied Geography, 115, 102138. https://doi.org/10.1016/j.apgeog.2019.102138

Liu, T., Zhang, X., & Jiang, Y. (2020b). Family socioeconomic status and the cognitive competence of very young children from migrant and non-migrant Chinese families: The mediating role of parenting self-efficacy and parental involvement. Early Childhood Research Quarterly, 51, 229–241. https://doi.org/10.1016/j.ecresq.2019.12.004

Liu, X., Wang, Z., Liu, Y., et al. (2023). How Destination City and Source Landholding Factors Influence Migrant Socio-Economic Integration in the Pearl River Delta Metropolitan Region. Land, 12(5), 1073. https://doi.org/10.3390/land12051073

Liu, Y., Li, Z., & Breitung, W. (2012). The social networks of new-generation migrants in China's urbanized villages: A case study of Guangzhou. Habitat International, 36(1), 192–200. https://doi.org/10.1016/j.habitatint.2011.08.008

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, 54(8), 1834–1850. https://doi.org/10.1177/0042098016634979

Massey, D. S. (1990). The Social and Economic Origins of Immigration. The ANNALS of the American Academy of Political and Social Science, 510(1), 60–72. https://doi.org/10.1177/0002716290510001005

Mo, H., Yau, Y., & Liu, Y. (2023). Beyond Homeownership? Examining the Mediating Role of Housing Tenure on Young People's Subjective Well-Being. Land, 12(3), 678. https://doi.org/10.3390/land12030678

Pearl, J. (2000). Causality: Models, reasoning and inference. Cambridge: Cambridge University Press.

Piore, M. J. (1979). Birds of Passage. https://doi.org/10.1017/cbo9780511572210

Quandt, S. A., Brooke, C., Fagan, K., et al. (2015). Farmworker Housing in the United States and Its Impact on Health. New Solutions: A Journal of Environmental and Occupational Health Policy, 25(3), 263–286. https://doi.org/10.1177/1048291115601053

Rabe, B., & Taylor, M. P. (2012). Differences in Opportunities? Wage, Employment and House-Price Effects on Migration*. Oxford Bulletin of Economics and Statistics, 74(6), 831–855. Portico. https://doi.org/10.1111/j.1468-0084.2011.00682.x

Shang, J., Wang, Z., Li, L., et al. (2018). A study on the correlation between technology innovation and the new-type urbanization in Shaanxi province. Technological Forecasting and Social Change, 135, 266–273. https://doi.org/10.1016/j.techfore.2018.04.029

Simmel, G. (2023). The Metropolis and Mental Life. Social Theory Re-Wired, 438–445. https://doi.org/10.4324/9781003320609-56

Stark, O., Bloom, D. E. (1985). The New Economics of Labor Migration. Papers and Proceedings of the Ninety-Seventh Annual Meeting of the American Economic Association, 75(2), 173–178.

Tang, S., Hao, P. (2018). Floaters, settlers, and returnees: Settlement intention and hukou conversion of China's rural migrants. China Review, 18, 11–34.

Tao, L., Hui, E. C. M., Wong, F. K. W., et al. (2015). Housing choices of migrant workers in China: Beyond the Hukou perspective. Habitat International, 49, 474–483. https://doi.org/10.1016/j.habitatint.2015.06.018

Tao, L., Lei, X., Guo, W., et al. (2022). To Settle Down, or Not? Evaluating the Policy Effects of Talent Housing in Shanghai, China. Land, 11(8), 1145. https://doi.org/10.3390/land11081145

Tao, L., Wong, F. K. W., & Hui, E. C. M. (2014). Residential satisfaction of migrant workers in China: A case study of Shenzhen. Habitat International, 42, 193–202. https://doi.org/10.1016/j.habitatint.2013.12.006

Tezcan, T. (2019). Return home? Determinants of return migration intention amongst Turkish immigrants in Germany. Geoforum, 98, 189–201. https://doi.org/10.1016/j.geoforum.2018.11.013

Tian, M., Tian, Z., & Sun, W. (2019). The impacts of city-specific factors on social integration of Chinese migrant workers: A study using multilevel modeling. Journal of Urban Affairs, 41(3), 324–337. https://doi.org/10.1080/07352166.2017.1406786

Tian, M., Xu, Q. (2023). Process and determinisms of settlement intention among China's migrant workers. Acta Geographica Sinica, 78(6), 1376–1391. https://doi.org/10.11821/dlxb202306004

Todaro, M. P. (1969). A Model of Labor Migration and Urban Unemployment in Less Developed Countries. American Economic Review, 59(1), 138–148. https://doi.org/10.1111/j.1467-8624.1997.tb01934.x

Toruńczyk-Ruiz, S., & Brunarska, Z. (2018). Through attachment to settlement: social and psychological determinants of migrants' intentions to stay. Journal of Ethnic and Migration Studies, 46(15), 3191–3209. https://doi.org/10.1080/1369183x.2018.1554429

Tsutsumi, M., & Seya, H. (2008). Measuring the impact of large-scale transportation projects on land price using spatial statistical models. Papers in Regional Science, 87(3), 385–402. https://doi.org/10.1111/j.1435-5957.2008.00192.x

Wang, C., Zhang, C., Ni, J., et al. (2019). Family migration in China: Do migrant children affect parental settlement intention? Journal of Comparative Economics, 47(2), 416–428. https://doi.org/10.1016/j.jce.2019.01.002

Wang, Y. (2013). Settlement Intention of Rural Migrants in Chinese Cities: Findings from a Twelve-city Migrant Survey. Population Research, 37(4), 19.

Wang, Y., Zhu, Z., Wang, Z., et al. (2022). Household Registration, Land Property Rights, and Differences in Migrants' Settlement Intentions—A Regression Analysis in the Pearl River Delta. Land, 11(1), 31. https://doi.org/10.3390/land11010031

Wood, G., & Ong, R. (2011). Factors Shaping the Dynamics of Housing Affordability in Australia 2001–06. Housing Studies, 26(7–8), 1105–1127. https://doi.org/10.1080/02673037.2011.615156

Wu, Y., Coulter, R., & Dennett, A. (2023). Understanding the relationships between the family structures and destinations of married migrants with children in China. Applied Geography, 160, 103102. https://doi.org/10.1016/j.apgeog.2023.103102

Xie, S., & Chen, J. (2018). Beyond homeownership: Housing conditions, housing support and rural migrant urban settlement intentions in China. Cities, 78, 76–86. https://doi.org/10.1016/j.cities.2018.01.020

Yang, J. (2013). Social Exclusion and Young Rural-Urban Migrants' Integration into a Host Society in China. The Annals of the American Academy of Political and Social Science, 648(1), 52–69. https://doi.org/10.1177/0002716213482441

Yinan, S. (2013). Family Migration in China. Population Research, 37(4), 66.

Yue, Z., Li, S., Jin, X., et al. (2013). The Role of Social Networks in the Integration of Chinese Rural–Urban Migrants: A Migrant–Resident Tie Perspective. Urban Studies, 50(9), 1704–1723. https://doi.org/10.1177/0042098012470394

Zhang, K. H., & Song, S. (2003). Rural–urban migration and urbanization in China: Evidence from time-series and cross-section analyses. China Economic Review, 14(4), 386–400. https://doi.org/10.1016/j.chieco.2003.09.018

Zhang, Y., & Chen, J. (2014). The changing prevalence of housing overcrowding in post-reform China: The case of Shanghai, 2000–2010. Habitat International, 42, 214–223. https://doi.org/10.1016/j.habitatint.2013.12.007

Zhang, Y., & He, S. (2023). Local Government's Land Finance Dependence and Migrants' Settlement Intentions: Evidence from China. Land, 12(7), 1359. https://doi.org/10.3390/land12071359

Zheng, S., Long, F., Fan, C. C., et al. (2009). Urban Villages in China: A 2008 Survey of Migrant Settlements in Beijing. Eurasian Geography and Economics, 50(4), 425–446. https://doi.org/10.2747/1539-7216.50.4.425

Zhou, J., & Chi-Man Hui, E. (2022). Housing prices, migration, and self-selection of migrants in China. Habitat International, 119, 102479. https://doi.org/10.1016/j.habitatint.2021.102479

Zhou, J., Lin, L., Tang, S., et al. (2022). To settle but not convert hukou among rural migrants in urban China: How does family-level eligibility for citizenship benefits matter? Habitat International, 120, 102511. https://doi.org/10.1016/j.habitatint.2022.102511

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. Portico. https://doi.org/10.1002/psp.544