



Access to homeownership in urban China: A comparison between skilled migrants and skilled locals in Nanjing

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ABSTRACT

Radical economic restructuring has resulted in a large flow of skilled migrants into ever-expanding Chinese cities in the past decade. Dreaming of owning a home in the destination city, skilled migrants compete with locals on the housing market. It is important to know how and when people acquire their home and, by the same token, what prevents others from doing so. Based on the life histories of 804 skilled workers in Nanjing and employing event-history analysis, this paper examines the differences in the timing of entry into homeownership between skilled migrants and their local counterparts and identifies the factors in parallel life course careers that contribute to these differences. Results show a delayed but accelerated increase in the homeownership rate for skilled migrants, indicating an assimilation process. Migrants' later entry into homeownership can be attributed foremost to the limited intergenerational transmission of wealth, while restricted knowledge about the local housing market and later partnership also play a role. Moreover, the evidence suggests that the timing of entry into homeownership is largely determined by the availability of financial resources and progression in the life course rather than institutional factors.

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1. Introduction

The population of internal migrants in Chinese cities has been undergoing tremendous demographic changes. In the last decade, large numbers of skilled migrants have flocked to the cities as a result of economic restructuring and the expansion of higher education enrollment since 1999 (Li, 2012; Liu & Shen, 2013). The number of college graduates reached 7 million in 2013. Because of the less developed economy and the less diversified labor market in small cities and towns, most of the educated graduates prefer to move to larger cities. They aspire to upward social mobility and show a strong tendency to settle down permanently in big cities (Wang, 2010). The migration of skilled labor is becoming a significant aspect of internal migration in China. Besides obtaining local *hukou*, owning a home in the destination city is viewed as a milestone for migrants, indicating their economic, social, and psychological assimilation. As future citizens, they play an increasingly important role not only in urban economic development, but also in shaping the urban residential landscape.

Although skilled migrants have potential earning ability, they lack knowledge about the local housing market as well as the initial capital to buy a home. Therefore, they differ from locals in access to homeownership. In the meantime, with the skyrocketing housing prices,

housing affordability has become the main concern of skilled migrants, and it even forces them to leave the big cities. Social inequality can arise from the differences in access to homeownership and can be reproduced if these differences persist (Henretta, 1984). Yet, little research has touched upon the issue of homeownership among skilled migrants. In this paper, the entry into homeownership of skilled migrants will be examined and attention will be paid to the differences between skilled migrants and their local counterparts. By adopting the life course perspective, we focus on how the timing of entry into homeownership is affected by progression in various life course trajectories in the Chinese context. Moreover, it is important to know how people acquire their home and, by the same token, what prevents others from doing so.

2. Literature review: Life course and migration theory

2.1. First-time homeownership: Life course theory

Tenure transition from rental to homeownership is considered to be one of the most important life events (Huang, 2004a) and is determined by both household and contextual factors (Clark, Deurloo, and Dieleman, 1994). In the life course approach, life events belonging to the same domain are grouped into parallel careers which include education, household, labor market, and housing careers. Life course theory examines both the needs for homeownership arising from events in the family life course and the resources and restrictions arising from

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parallel life course trajectories within ever-changing macro contexts (Mulder & Wagner, 1998).

The need and aspiration to own a home arise with progression through the life course. It has been widely acknowledged that events in the household career such as marriage and childbirth trigger the tenure transition into ownership (Deurloo, Clark, and Dieleman, 1994). An owned home could be an essential component of economic prerequisites or a catalyst for marriage (Holland, 2012), and the pooling of resources through marriage enhances the financial ability to purchase a house (Kendig, 1984). Furthermore, anticipation of the birth of the first child raises the likelihood of becoming a homeowner (Feijten & Mulder, 2002). Once a couple enters into parenthood, the transition into homeownership may be postponed or not be made at all for practical or financial reasons (Smits & Mulder, 2008).

Whether a need or preference for homeownership can be realized largely depends on the availability of resources, including current income, savings, as well as future earning potential (Mulder & Wagner, 1998). The availability of resources depends largely on socioeconomic status which, in turn, is closely associated with the level of education and the labor-market career (Nielsen & Jensen, 2011). Variation in homeownership rates is observed among different occupations and social classes (Bernardi & Poggio, 2004; Cabré Pla & Cabrerizo, 2004). Apart from individual resources, intergenerational transmission of wealth, both in the form of gifts and inheritance, is becoming increasingly important for young adults' access to homeownership (Mulder & Smits, 2013). This is supported by evidence from all over the world, not only in countries with a strong social norm of family support such as those in Southern Europe (Poggio, 2008), but also in countries characterized by individualism, such as the United States and The Netherlands (Helderman & Mulder, 2007; Mayer & Engelhardt, 1996).

Besides individual life course factors, the decision and timing to buy a home can be substantially influenced by financial and housing market circumstances, including housing prices, inflation, interest rates, and borrowing constraints in the mortgage market (Clark et al., 1994). In Japan, the homeownership rate dropped during the housing price boom from the 1980s to mid-1990s and started to rise again after the real estate bubble burst in 1995, whereas in the United States, the increase in the homeownership rate coincided with the rise in housing prices (Muraki, 2009). The rapid increase in housing prices can lead to two opposite consequences: depressing the homeownership rate, especially for low-income and young households, or on the contrary encouraging people to purchase a house as early as they can in the face of a continuous rise in housing prices (Elliott & Wadley, 2013). The mortgage market also matters. The availability of residential mortgage loans immensely facilitated younger households to become homeowners (Angelini & Weber, 2012). The amount of down payment required for a mortgage differs between countries, resulting in variations in the accessibility of homeownership.

2.2. Homeownership in the Chinese context

The national context is essential for understanding the tenure choice of households. During the Chinese socialist era from 1949 till the 1980s, housing was considered a welfare benefit, and the public rental sector occupied the prime position (Huang, 2004a). Since 1988, housing reform has transformed the housing market from a welfare-oriented into a market-oriented system, which has encouraged the growth of the owner-occupied housing sector and nurtured the creation of a "homeowner society" (Wang & Murie, 1999). Since then, work-unit housing has been privatized massively, and commodity housing has been rapidly added to the housing stock (Huang, 2004b). Consequently, the rate of urban homeownership in urban China has skyrocketed from around 20% in the 1980s to 47% in 1996 (Huang & Clark, 2002). In the 1990s, a nationwide mandatory Housing Provident Fund was introduced to channel more funds to housing construction and to facilitate the switch to owner occupation. Employees are required to pay a

company-matched monthly contribution into a state-managed account within the Housing Provident Fund, which can be used to purchase a home or alternatively as a pension on retirement (Li & Yi, 2007a). In addition, commercial mortgage for purchasing property from banks is becoming another important source for financing homeownership. The homeownership rate further increased to 72% in 2000 according to the 2000 Population Census and to 87.4% in 2012 according to the 2013 *China Well-being Development Report* released by Peking University.

One long-standing tradition in Chinese society is that adults should purchase property in order to accumulate wealth for the next generation (Mak, Choy, and Ho, 2007). The massive transition into homeownership in the late 1990s indicates the return of the desire for homeownership after decades of suppression during the socialist era (Huang, 2004a). The aspiration to own a home is also related to the composition of the housing stock, where rental housing does not form a high-quality alternative for owner-occupied housing (Mulder, 2006). With the increasing aspiration, the average price of commodity housing doubled nationwide during 2002–2012 from 2092 to 5430 yuan/m², while the price in Nanjing tripled from 2780 to 9675 yuan/m² during the same period (NBSC 2002, 2012). Due to the growing population, sustained economic growth, speculation, and inadequate supply of affordable housing, housing affordability has become a substantial and pressing issue and is of particular concern to young potential first-time buyers (Mak et al., 2007).

The distinctiveness of the Chinese housing market in comparison with Western nations provides a unique context to study housing behavior. In socialist urban China, households were hardly in a position to make housing decisions. Housing was allocated by employers or the state, based on a series of criteria such as *hukou* status, job rank, job seniority, and political status (Huang & Clark, 2002). In the transitional era, the opening up of the real estate market allowed households to choose their preferred dwellings. Although the importance of market factors such as age, household size, and household income have become more observable in the emerging housing market, institutional factors are still significant in explaining individuals' housing access and consumption (Li, Wang, and Law, 2005). For instance, local *hukou* was required for renting public low-rent housing and purchasing economical housing (a kind of subsidized owner-occupied housing). The type of employer also made a difference. Resourceful employers in the public sector could either collectively build dwellings and allocate them to their employees at a subsidized price or set up higher Housing Provident Fund contributions (Huang & Clark, 2002). Market transition theory hypothesizes that with the market playing an increasingly pivotal role, the effects of market-related factors, which are closely related to stages in the family life course, will increase, and that the effects of institutional factors will gradually decline (Li & Yi, 2007b; Nee, 1989).

2.3. Migrants' homeownership

Another important topic in the literature on homeownership is the disparity among different population groups, for instance between natives and immigrants. Research has primarily focused on international migrants, which may also be relevant to internal migrants in China. Institutional and other barriers that confront Chinese internal migrants have persistently rendered them economically and socially marginalized in the host cities, and to some extent they resemble international migrants who also have to deal with significant geographic and institutional barriers in the host countries (Sun & Fan, 2011).

The homeownership gap between natives and immigrants has been observed in varied contexts (Bolt & van Kempen, 2002; Painter et al., 2003; Sinning, 2010). Gabriel and Rosenthal (2003) find that in the United States, socioeconomic characteristics are responsible for the substantial gap in homeownership between minorities and white natives. In many cases, immigrants lack resources and usually have insufficient knowledge of the local housing market. Moreover, the broader "context" of the housing system contributes to the disparities in the housing

career performance between natives and immigrants (Bolt & van Kempen, 2002); for instance, immigrants are restricted from accessing the social rented sector.

Myers and Lee (1996) identify homeownership as one of the most important events in the economic integration of immigrants, since homeownership represents an outcome of long-term economic progress. Homeownership does not only provide direct services and long-term financial security for a family (Wolff, 1998) but may also increase life satisfaction and improve physical and psychological health (Rohe, van Zandt, and McCarthy, 2013). In assimilation theory, positive associations of homeownership with duration of residence, attainment of citizenship, and local language ability are expected (Alba & Logan, 1992). Bostic and Surette (2001) find that the homeownership gap between minority and nonminority households in the United States have declined significantly between 1989 and 1998. In contrast, in Germany, an assimilation process in homeownership among immigrant households has not taken place. Sinning (2010) attributed this difference between the United States and Germany to the distinct immigrant populations in terms of skills and intentions to settle down.

The population of internal migrants in Chinese cities has been undergoing tremendous demographic changes. Due to the dramatic expansion of higher education on the supply side and economic restructuring on the demand side, a large population of skilled migrants is flowing into Chinese cities (Li, 2012; Liu & Shen, 2013). Loosely defined, skilled migrants are those who have obtained a college degree and are employed in white-collar jobs. Compared with traditional rural migrants, skilled migrants bear more resemblance to established urbanites in terms of higher educational achievement, stronger aspiration for upward social mobility, and a stronger tendency to settle permanently in cities, and thus they should be viewed as “prospective citizens” (Wang, 2010). They play an increasingly important role not only in the urban economic development but also in shaping the urban residential landscape. Although the emergence of skilled migrants and issues related to their migration, such as housing conditions, residential mobility, social interaction, and integration process, have received attention from researchers (Cui et al., 2014, 2015; Li, 2012; Li & Liu, 2011), the transition into homeownership, which is one of the most important events in the life course and in the economic assimilation process, has not been studied yet.

To address this gap, this paper examines the differences in entering homeownership between skilled migrants and their local counterparts. Integrating the distinctive features of the Chinese housing market into more Western-oriented life course theory provides the theoretical framework for our data collection and the explanatory analyses. Based on the above literature review, we hypothesize that life course theory is universal and can be applied to Chinese cases. Specifically, major events in the household career, including cohabitation/marriage and childbirth, are hypothesized as the trigger for the transition from renting to owning. In the education career, educational attainment, which is a predictor of occupational advancement, is assumed to affect the timing of entry into homeownership. The influence of an individual's labor career on his/her tenure choice is expected to be more direct, through the effect of income. In addition, we also assume that the Housing Provident Fund, the financial resource in the form of welfare benefits accruing from migrants' labor career, matters in affecting the entry into homeownership. On the contrary, the traditional institutional factors, including *hukou*, Chinese Communist Party (CCP) membership, and the type of employer, are expected to lose their influence, after two decades of housing reforms, when commodity housing has become the dominant supply mode in the Chinese housing market. Housing prices, acting as an indicator of the local housing circumstances, are hypothesized to influence individuals'/households' decision about whether or not to enter into homeownership. Lastly, we expect a homeownership gap between skilled migrants and their local counterparts. Although skilled migrants may have higher earning ability, they lack initial capital and resources, whereas the locals may receive substantial intergenerational

transmission of wealth which enables them to enter homeownership much earlier. This empirical research will test the above hypotheses taking Nanjing as a case study, and it will contribute to the growing literature on housing behavior and housing inequality in China.

3. Data and method

3.1. Data

The data used in this paper were derived from a retrospective survey, which was conducted in Nanjing during 2012–2013. Nanjing, a typical second-tier city in China, with the total population of 8 million in 2010 (the Sixth China Census), was chosen as the study area for the following reasons. Firstly, the existing literature on urban China focuses mostly on four first-tier cities, Beijing, Shanghai, Guangzhou, and Shenzhen, whereas less attention is paid to the more than 30 second-tier cities. The significant differences between first-tier and second-tier cities in terms of economic volume, housing price, magnitude of migrant population, *hukou* policies, etc., will result in varied residential behavior of both locals and migrants. The empirical study in Nanjing could serve as a reference for other second-tier cities in China. Secondly, the Nanjing government has been making great efforts to upgrade the economic structure, and thereby transforming Nanjing from an industrial production center into a regional service center. In this process, an increasing demand for skilled labor induces a large flow of skilled migrants into the city, which makes Nanjing a suitable case to study the skilled migrant population. Thirdly, Nanjing has long been a provincial and national center for higher education, with 15 universities, 10 colleges, and 17 vocational colleges. The number of graduates from Nanjing reached 262,000 in 2012. Upon graduation, those college/university students enter the labor market and many of them, coming from outside of Nanjing, become a skilled migrant. As a city with large numbers of prospective skilled migrants, Nanjing serves as a good case to investigate the issues about skilled migrants.

The survey collected the life histories (household composition, migration histories, labor market, and residential histories after attaining the highest level of education) of 804 skilled workers in Nanjing, including 175 locals, 330 intra-provincial migrants, and 299 inter-provincial migrants. Instead of based on *hukou* status, which may change with time, migrants and locals are differentiated by their “hometown”, which refers to a place where people grow up. A distinction was made between intra- and inter-provincial migrants, because policies such as social welfare and mortgage regulations work differently for intra- and inter-provincial migrants. In addition, inter-provincial migration involves long-distance movement and higher costs, so the features of inter-provincial migrants may systematically differ from those of intra-provincial migrants (Poncet, 2006).

Because of our focus on skilled workers, the survey was employment-based. We adopted multistage cluster sampling combined with snowball sampling. The primary sampling unit was the enterprise/institution. The initial list of skilled-labor-intensive enterprises/institutions was compiled by selecting the most common enterprises/institutions where university graduates with different disciplines are enrolled. Within each enterprise/institution respondents were chosen with consideration given to the gender balance and the variety of places of origin. Later, the respondents were asked to spread the survey to other skilled-labor-intensive enterprises/institutions through their alumni networks or personal connections. During this process, we kept controlling to ensure that each respondent met the criteria (skilled worker, living and working in Nanjing). Ultimately, the respondents were recruited from over 200 enterprises/institutions, which covered a wide range of industry types in Nanjing, including health, research, finance, education, information technology, culture, construction, telecommunications and manufacturing. We do not intend to claim statistical representativeness for the skilled workers in Nanjing based on this sampling; rather, our

aim here is to capture the difference between locals, intra-provincial migrants, and inter-provincial migrants.

The life course approach usually takes the individual as the unit of analysis because of the difficulty of giving a proper longitudinal definition of the household (Mulder & Wagner, 1998). However, it should be acknowledged that the decision to become a homeowner is, in most cases, a joint decision of more than one household member. Particularly, to buy a dwelling, household income is more decisive than individual income, and thus household annual income, instead of individual annual income, was collected. While it is common practice among many young couples in Chinese cities to cohabit before marriage, the respondents may be hesitant about revealing their cohabitation status because of negative reactions from society at large. To capture the cohabitation status, we asked a question in the survey “whom are you living with?”, and “spouse/partner” was provided as one of the options. As a result, we were unable to differentiate between cohabitation and marriage.

The surveyed skilled workers are on average no more than 30 years old. Consistent with the classical theories on migration, males are more dominant in the migrant population. Educational attainment is measured by overall years of schooling, and 16 years of education is equivalent to the attainment of a bachelor's degree. Skilled migrants are generally well educated, even compared to their local counterparts. Nanjing has long been a provincial and national center of higher education, with over 25 universities and 17 vocational colleges. More than 60% of local and intra-provincial skilled workers obtained their highest educational degree in Nanjing, whereas only 36.12% of inter-provincial migrants graduated from universities in Nanjing. The social connections and the familiarity with the local labor and housing markets give local graduates an advantage over non-local graduates. The family size of migrants, inter-provincial migrants in particular, is smaller than that of the locals, and fewer migrants have children, implying that they lag behind the locals in entering into partnership and parenthood. As expected, the majority of skilled migrants comes from urban areas, as shown by their initial urban *hukou*. By the time of the interview, most migrants have obtained Nanjing urban *hukou*, demonstrating their ability to overcome institutional barriers. Besides income, owning a car can be seen as an indicator of wealth and financial stability, and the statistics show that the locals are more financially stable. On average, 16% of migrants were uncertain about whether they will settle down in Nanjing. It is not a large proportion, but when compared to the locals, there is a difference. Their uncertainty might be related to their lower evaluation of Nanjing as a place of residence.

4. Method

The methodological translation of life course theory is event-history analysis, which has been widely used in the social sciences to study underlying causalities behind event occurrences. The strengths of event-history analysis lie in the ability to handle censored data properly and to include time-varying covariates. Specifically, discrete-time logistic models were employed following the standard logistic regression procedure after converting the dataset to the person-year format. After conversion, each row in the dataset represents 1 year in the life of a respondent. The first person-year is the year when the respondent started his/her residential career in Nanjing after completing the highest level of education. The last person-year is either the year in which the respondent became a homeowner for the first time or the year of the interview if he/she has never been a homeowner. All subsequent person-years after the transition into homeownership were excluded from the analysis, resulting in a total number of 3317 person-years. Clustered standard errors were used, given the fact that each individual may contribute a bundle of observations in person-year format data.

$$\ln\left(\frac{P_{it}}{1-P_{it}}\right) = \alpha(t) + \beta_j X_j(t) \quad (1)$$

The discrete-time logistic model takes the form of Eq. 1, in which P refers to the probability of individual i making a transition into homeownership at time t . Based on the literature review, the covariates used to explain the timing of first-time homeownership include hometown dummy variables, demographic factors, variables derived from the retrospective histories of educational, household, and job careers, as well as institutional factors. The value of some explanatory variables is static (hometown, gender, educational attainment), while most others are time-varying. Two variables, *household annual income* and *intention to stay in Nanjing*, are measured at the time of interview only, because their values can hardly be measured retrospectively. In addition to the variables at the individual level, the models also included time-varying house prices indicating the changing affordability of housing, which may influence the decision whether or not to enter homeownership. The historical data on housing prices in each year were obtained from the website of the National Statistics Bureau.

5. Differences in homeownership between locals and migrants

5.1. Descriptive analysis

The descriptive data reveal that the homeownership rate among migrant is evidently lower than that of the local population, particularly the rate for the first residence (Table 1). Almost one-third of locals start their housing career as a homeowner. At the time of the interviews, the homeownership rate for migrants had increased considerably and they have caught up with their local counterparts, indicating an assimilation process in homeownership. The following graphs and tables demonstrate the homeownership gap between skilled locals and migrants in terms of the household type, acquisition means, household annual income, and timing of entry into homeownership.

As expected, the nuclear family is the dominant household type among homeowners (Fig. 1 (a)). Extended families (adult children

Table 1
Profile of the respondents: locals, intra-provincial and inter-provincial migrants.

All respondents	Local (175)	Intra-provincial migrants (330)	Inter-provincial migrants (299)
Age	29.35	28.95	28.60
Length of housing career in Nanjing	7.67	6.69	5.55
Sex ratio (male/female)	0.966	1.357	1.282
Education (average years of schooling)	16.50	16.63	17.69
Local graduate	64%	62.73%	36.12%
Family size	2.70	2.08	1.88
Having a child/children	40.57%	30.61%	20.74%
Household annual income ^a (rmb 100 000)	1.122	1.051	0.968
Initial <i>hukou</i> (urban/total)	75.43%	54.55%	55.52%
Possessing Nanjing urban <i>hukou</i>	76%	61.21%	72.24%
Car ownership ^b	41.07%	28.13%	30.97%
Uncertainty about settling down in Nanjing	4.57%	14.24%	18.39%
Evaluation of Nanjing ^c (range: – 2 to 2)	0.68	0.43	0.55
<i>Homeownership rate</i>			
1st residence	33.14%	13.94%	11.37%
Current residence	54.86%	41.21%	33.11%
Current homeowners	96	136	99
Family support among homeowners	71.88%	69.12%	63.64%
Extent of family support in housing price	51.98%	32.35%	26.45%
Mortgage among homeowners	37.50%	71.32%	75.76%

^a 699 respondents reported their household annual income; 1 dollar = 6.3 rmb in 2012.

^b 297 respondents reported their car ownership situation.

^c The value of evaluation is the average score of four questions: (1) In general, is Nanjing a nice city to live in? (2) Are there good job opportunities? (3) Are you able to find a satisfactory dwelling? (4) Is Nanjing a good city to raise a family?

Table 2
Discrete-time event-history analysis results.

Independent variables	Base model	Model 1	Model 2	Model 3
Hometown (Jiangsu, ref. Local)	−0.549***	−0.485**	−0.103	0.074
Hometown (other provinces, ref. local)	−0.621***	−0.447*	−0.185	−0.472
<i>Demographic</i>				
Male (ref. female)		−0.176	−0.133	−0.059
Age		−0.005	−0.090***	−0.073**
Intention to stay in Nanjing		0.375**	0.343**	0.265*
<i>Education career</i>				
Education (in years)		0.056	0.090	0.089
Local graduate		0.216	0.246	1.201***
Local graduate no. Hometown (Jiangsu)				−0.953*
Local graduate no. Hometown (other provinces)				−1.636**
<i>Household career</i>				
1st childbirth		0.766*		
Lead 1 year 1st childbirth		1.043***		
Lead 2 year 1st childbirth		0.618*		
Family size			0.866***	0.908***
Childbirth			0.007	0.069
Cohabitation/marriage			2.550***	2.585***
Increase in family size			2.763***	2.856***
Decrease in family size			3.322***	3.426***
<i>Job career</i>				
Household annual income (RMB 100,000)		0.442***	0.532***	0.646***
Employer type (Foreign/Joint/Pri_enter, ref. Gov&Inst&SOE)		0.082	−0.050	−0.090
Employer type (other & missing, ref. Gov&Inst&SOE)		0.474	0.437	0.414
Housing fund (unit: 100 yuan/month)		0.008	0.025	−0.089*
Housing fund xHometown (Jiangsu)				0.078
Housing fund xHometown (other provinces)				0.213***
<i>Institutional factor</i>				
Initial hukou urban (ref. rural)		0.462**	0.400*	0.398*
CCP membership		−0.050	−0.144	−0.108
<i>Contextual factor</i>				
Average housing prices (unit: 1000 yuan/m ²)		−0.000	−0.051	−0.063*
<i>Constant</i>	1.742***	−4.809***	−5.278***	−5.657***
Number of observations	3317	2343	3317	3317
Log pseudolikelihood	−1078.030	−821.659	−755.709	−735.156
Wald chi ²	15.15	105.03	330.06	348.12
Pseudo R ²	0.0089	0.0674	0.3052	0.3241

* <0.05 significance level.

** <0.01 significance level.

*** <0.001 significance level.

living with parents and/or grandparents) are more common in China than in Western countries.¹ Usually, migrants' parents live with their adult children in order to take care of their grandchildren. That is why there are more migrant extended families with children. Although first-time homeownership is frequently synchronized with marriage, there is a trend among cohabiters and even singles to own a home (Smits & Mulder, 2008). In this empirical study, on average, 10% of males were already owner-occupiers before marriage, but there were fewer homeowners among single females, which reflects a tradition in China that males are more responsible for providing a home, and some own one even before marriage.

There are different means of financing a home. Family support is an important financial source for both locals and migrants, but the amount of family support varies between locals and migrants. On average, family support for the locals accounts for 51.98% of the full price of a house, while

for intra- and inter-provincial migrants the amount of family contribution is substantially less (Table 1). With rising housing prices and the widespread availability of mortgage loans, many people resort to mortgages to acquire a home. Unlike Li and Yi's (2007a) earlier findings, mortgage loans now play an important role in achieving homeownership; especially for migrants, more than 70% of them require a mortgage. Comparatively, locals rely more on family support to acquire a home, whereas migrants rely more on mortgages.

Fig. 1(b) shows different combinations of family support and mortgage loans which enable locals and migrants to become homeowners. It is striking that more than 38% of locals received a dwelling as an inheritance or a gift from their parents. Local parents may have benefited from housing reform through purchasing highly subsidized work-unit housing. They thus had disposable wealth to buy a second home before the real estate boom either as an investment or for their children. With regard to migrants, the most common means for financing a home is to combine parental help and mortgage. It is common practice for parents to pay for the down payment (normally 30% of the full price), which is a requirement for mortgage loans.

It has been repeatedly found that household income is associated with the propensity to own a home (Mulder & Wagner, 1998), which is also valid in this study. Higher household annual income resulted in a higher rate of homeownership among locals and migrants (Fig. 2). Differences between locals and migrants can be observed for households with a lower income: the percentage of homeowners among locals is evidently higher than that of migrants. It suggests that locals are more able to achieve homeownership at low-income levels than migrants, which is consistent with the statistics reported earlier that locals' family support is an important factor explaining the higher rate of homeownership among them.

Kaplan–Meier survival curves estimate the percentage of skilled workers who “survive” from entering into homeownership in the life course (Fig. 3 (a)). Although the transition into homeownership often occurs at younger ages, there is still a marked difference between locals and migrants. The highest probability to own the first home is in the late twenties for locals, notably earlier than migrants who enter into homeownership mainly in their early thirties.

Another way to examine the timing of first-time homeownership is by comparing it with the year of birth of the first child (Fig. 3 (b)). In varied contexts, the transition into homeownership is often found to be undertaken in anticipation of the birth of the first child (Feijten & Mulder, 2002). This is also confirmed by our empirical study. The peak in the homeownership rate appears in the year preceding childbirth. Once a couple enters into parenthood, the transition into homeownership is much less likely to take place for practical and financial reasons. However, it has to be noted that the peak in the graph may result from the effects of other events, which also occur in the years preceding the first childbirth, such as cohabitation and marriage. To investigate the extent to which life course trajectories influence the timing of entry into homeownership, we move on to the explanatory analysis.

5.2. Explanatory analysis

As shown in Table 2, the base model only includes hometown dummy variables to show the likelihood of the respective groups to enter into homeownership, providing a benchmark for the following models that control for other independent variables. In line with the descriptive analysis, the results of the base model show that both intra- and inter-provincial migrants are significantly less likely than locals to make a transition into homeownership. In the following models, other remaining independent variables are taken into account.

The difference between models 1 and 2 is that different sets of variables were used to indicate family events. In model 1, the first childbirth and its lead effects are examined. The results are consistent with those presented in Fig. 3(b): 1-year lead effect of the first childbirth is strongest, and the transition into homeownership is also likely to be

¹ According to the China Well-being Development Report 2012, 24.8% of married couples lived with the parents of one of the spouses.

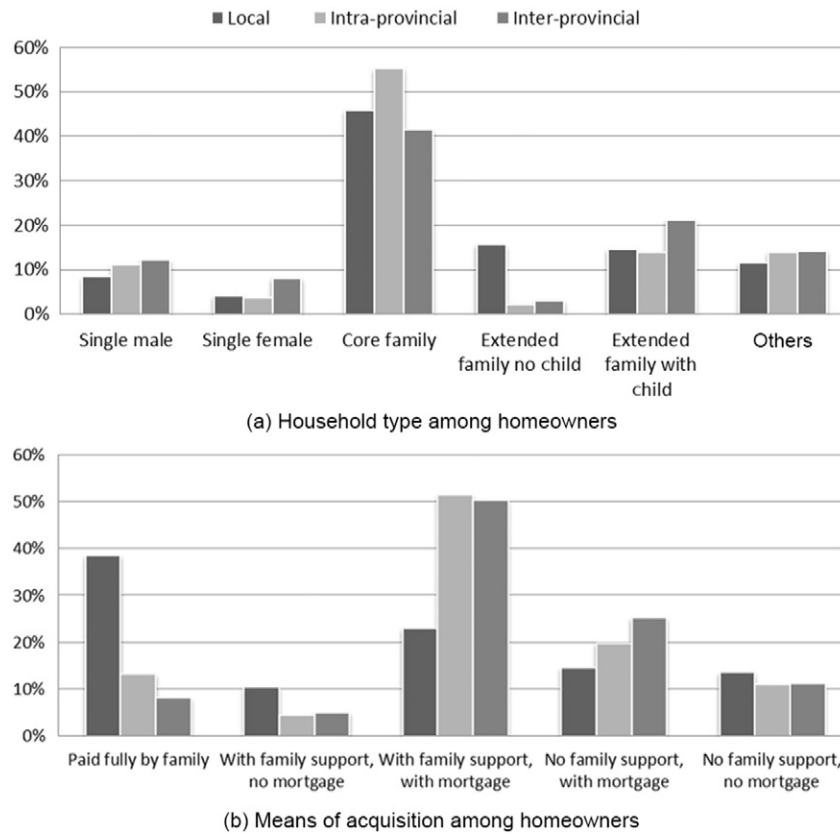


Fig. 1. Household types and means of acquisition among homeowners.

undertaken 2 years before or in the same year of the first childbirth. In order to distinguish the effects of cohabitation/marriage from the effects of the first childbirth, variables of family size and household events were used in model 2. *Family size* is a time-varying variable recording the family size in each year. Four different kinds of household events were identified: the birth of a child, cohabitation/marriage, other kinds of increase in family size, and decreases in family size. The results of model 2 show that larger families are more likely to be owner-occupiers. Furthermore, after considering all types of household events, the effects of childbirth have disappeared. So the answer to the question raised in the previous section is that cohabitation/marriage rather than the first childbirth triggers the transition into homeownership. In model 2, after controlling for the family size, cohabitation/marriage and other changes in family composition, there was no longer any significant

difference between locals, intra- and inter-provincial migrants. As suggested by the descriptive analysis, migrants lag behind locals in partnership formation, so a later partnership could be a reason for migrants' later entry into homeownership.

The results of models 1 and 2 show that there is no gender difference, since the decision to enter into homeownership is usually made at the household level. Homeownership entails long-term financial commitments and restricts further residential mobility; therefore the transition into homeownership is primarily made by those who have a strong intention to settle down in Nanjing, although reversed causality may also exist. Owning a home will strengthen the intention to stay in Nanjing. Education does not exert a significant influence, probably because of the narrow variation in educational attainment among skilled workers. Household income is a significant and strong predictor of the

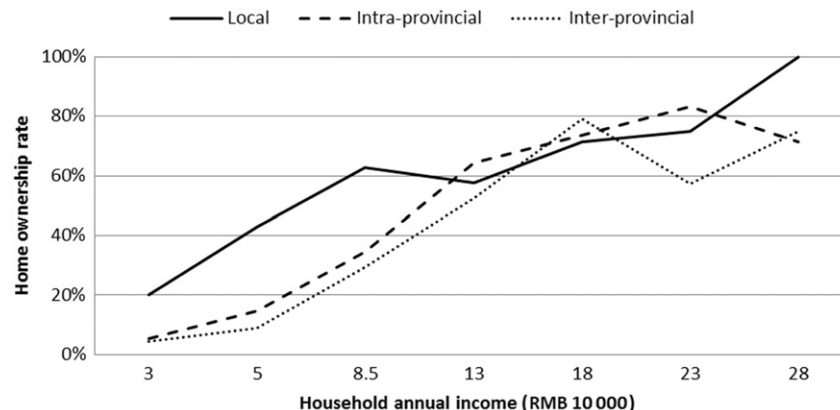


Fig. 2. Homeownership rate by household annual income.

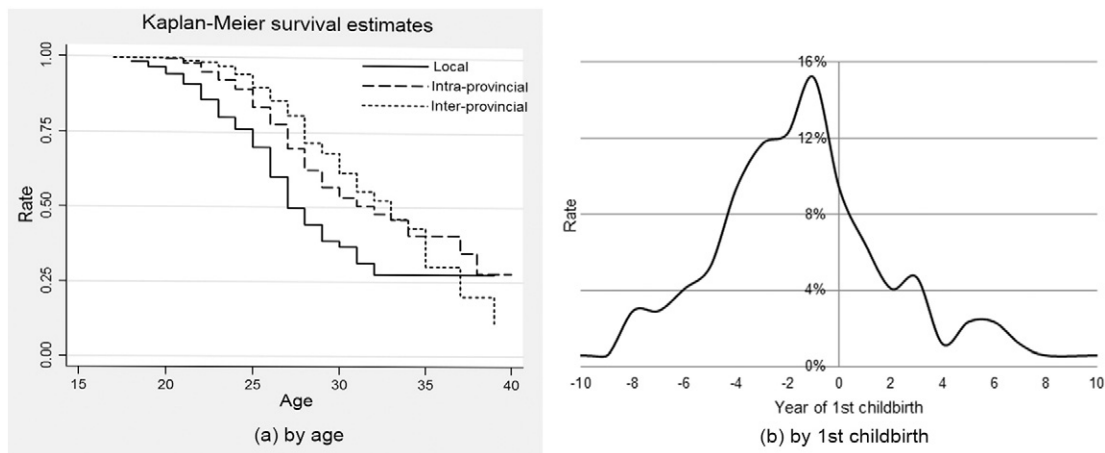


Fig. 3. Timing of the transition into homeownership.

likelihood of being a homeowner, while the type of employer has an insignificant impact. This implies that employers have gradually retreated from housing welfare provision, and the relationship between employers and employees has become simply wage-based. The variable *Initial hukou urban*, which indicates whether a person is originally from a rural or urban area, provides a proxy indicator of the financial ability of family origin. Because a large income gap exists between rural and urban areas, people from urban areas have a higher probability of receiving family support, and thereby are more likely to become a homeowner. Another institutional variable *CCP membership* is insignificant, suggesting that it has lost its impact on housing consumption.

In view of the different effects of demographic, educational, household, job, and institutional variables on locals, intra- and inter-provincial migrants, the interaction terms between these variables and the hometown dummy variables were tested. Only two interaction terms were significant and these are presented in model 3. Graduating from an educational institution in Nanjing increases the probability of owning a home among locals and is slightly helpful for intra-provincial migrants, but is negatively related to the likelihood of inter-provincial migrants being owner-occupiers. The amount of money people have in their Housing Provident Fund does not have much influence on the locals and intra-provincial migrants but works positively for inter-provincial migrants. Without sufficient family support, migrants, inter-provincial migrants in particular, have to rely more on their own resources, so the Housing Provident Fund is important for them. The more Housing Provident Fund one has, the more likely he/she makes a transition into homeownership, because the Housing Provident Fund can be retrieved directly to finance a home, and moreover, it can qualify for mortgage interest reduction. After introducing interaction terms, the coefficient of the contextual factor, the average housing price, becomes significantly negative, suggesting a deterrent effect of housing prices on the decision to purchase the first home.

6. Conclusion and discussion

Since the opening up of China's real estate market in 2000, homeownership has been seen as an important achievement. Difference in access to homeownership can be both a consequence and a cause of social inequality (Masnick, 2001). In this paper, we focus on homeownership commonalities and differentials between skilled migrants and their local counterparts. Unlike rural-urban migrants who retain their roots in their home villages and eventually go back, the majority of skilled migrants expect to integrate permanently in the destination cities. They should be considered "prospective citizens", since they aim to fulfill the Chinese dream of homeownership in the destination cities. In order to find out the causes and consequences of the differences in homeownership between skilled locals and migrants, life

course theory was adopted to reveal the connection between the timing of first-time homeownership and progression in various life course trajectories, institutional factors as well as the changing contextual factors.

The homeownership gap between natives and immigrants observed in Western countries is due foremost to the differences in socioeconomic factors (Gabriel & Rosenthal, 2003). However, in the existing migration literature, the role of family support in generating the homeownership gap has seldom been explored. Our empirical results show that skilled locals and migrants possess similar socioeconomic status, and the homeownership gap between them can be ascribed to the disparity in family financial support. This finding may also be relevant to other countries. Many locals start their housing career as a home owner because they are beneficiaries of substantial intergenerational wealth transfers. By contrast, migrants receive much less parental financial support because most of them come from small cities or rural areas where house prices and income are significantly lower, and thus have to rely on themselves to accumulate resources to finance a home, which requires at least 30% of the total housing price as down payment. This constrains them from entering into homeownership as early as their local counterparts. The resulting homeownership gap between locals and migrants to some extent suggests that inequity is reproduced between generations, and at the same time reflects economic disparities between regions. Reducing the amount of down payment for first-time home buyers would improve the accessibility of homeownership, especially for migrants.

Fortunately, in contrast to immigrants in Western countries where race or ethnicity seems to have a lasting impact on housing attainment (Huang et al., 2014), in China, an assimilation process in homeownership seems to be taking place among skilled migrants. Skilled migrants' competitive educational attainment and skills help them to overcome the *hukou* barriers, thereby enabling them to enjoy full rights of citizenship. Their strong tendency to settle down in Nanjing is also decisive in the assimilation process. Moreover, the availability of mortgage loans either through the Housing Provident Fund scheme or commercial loans facilitates people, migrants in particular, to enter into homeownership.

Large amounts of research have already contributed to the debate on the influence of the market versus institutional factors on housing consumption in post-reform urban China (Huang & Deng, 2006; Wu, 2004). Scholars agree that in the early 2000s—the transitional period—both market mechanisms and the institutional legacy played a vital role in residents' housing behavior (Huang et al., 2014; Li & Yi, 2007b; Liang, 2013). Based on the data obtained in Nanjing in 2012, when commodity housing emerged as a major pathway to homeownership in urban China (Liang, 2013), our study shows that housing behavior is largely determined by market factors which are closely related to progression in one's life course, whereas, the effects of institutional factors such as employer type and CCP membership are becoming limited. The growing influence of market factors found in this study supports the market

transition theory, which may also be applied to other reforming socialist countries.

Within China, we expect that similar findings will be observed in other second-tier cities, which share a lot of similarities with Nanjing in terms of population size, economic development phase, migration regulations. However, the conclusion of this paper cannot be directly applied to first-tier cities, especially considering the strict *hukou* restrictions in the housing market there.²

The way in which market factors influence housing behavior in Nanjing shares a lot of similarities with Western countries. Household income, as a direct indicator of one's financial resources, is of prime importance in explaining the transition into homeownership. Household events such as cohabitation/marriage and other changes in household composition are strong predictors as well. The trend of delayed marriage has resulted in declining homeownership rates in Western countries (Baxter & McDonald, 2004). This may also happen to skilled migrants in China. Their tendency to enter into partnership at a later stage is to some extent responsible for their later transition into homeownership. It may also work in the reverse. There is a pressing need to own a home at the time of marriage: if you want to get married you have to buy a home and if you cannot afford it then you should wait until you can. Severe housing unaffordability may not only induce young people to postpone entering into homeownership but also constitute a major obstacle for them to start a family. A great deal of media attention has been generated about males without personal property, indicating that they are a disadvantaged group in the marriage market. Poor bachelors may become a vulnerable segment of society, which may pose a threat to social stability.

Instead of further promoting homeownership, the government needs to establish a sound and well-functioning rental market. To address the crisis in affordability, the development of a social housing sector, which is also open to migrants, is an essential step to provide an alternative to both the owner-occupied and the private rental sector, which is currently characterized by a lack of regulation and of legislation that protect the rights of tenants. Policies, such as rent control, the enforcement of landlord registration, and the establishment of tenant protection associations, may lead to a better operating private rental market and would also support the development of a social rental sector by creating a more level playing field. In the longer run, a mature non-profit sector will compete with the private sector without the support of rent regulation (Kemmeny et al., 2005), contributing to a unitary rental market in which secure rental homes are available for families that cannot or chose not to own.

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² In Beijing, only migrants who have participated in the local welfare system more than five years are allowed to buy a home. In Shanghai, unmarried migrants no longer qualify to buy a dwelling from 2013 onward. Such strict policies will probably affect the housing behavior of potential first-time buyers. The influences of varied local policies have to be taken into account when studying the behavior of distinct groups in the housing market.

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