

1 **Hometown landholdings and rural migrants' integration**

2 **intention: the case of urban China**

3 **Jing Zou^a; Jie Chen^b; Yu Chen^c**

4 **a. School of Finance, Zhejiang University of Finance and Economics, Hangzhou, China. Email:**
5 **glss2008@163.com**

6 **b. corresponding author, School of International and Public Affairs, China Institute for Urban**
7 **Governance, Shanghai Jiao Tong University, China. Email: chenjie100@sjtu.edu.cn**

8 **School of East Asian Studies, University of Sheffield, UK. Email: yu.chen@sheffield.ac.uk**

9
10 **Abstract:** This paper investigates the association between hometown landholdings and rural
11 migrants' intentions to integrate in their destination societies in Chinese cities. We argue that
12 hometown landholding affects rural migrants' integration intention through the asset effect, security
13 effect and emotional attachment effect. The empirical work based on a large national micro-level
14 data extracted from the 2017 China Migrants Dynamic Survey (CMDS) shows that, rural migrants
15 who possess contracted farmland but no homestead land in hometown have the highest level of
16 integration intention, followed by those without any land, those with both types of land, and finally
17 those with homestead land only. Such findings suggest that the possession of farmland tends to
18 boost rural migrants' integration intention while the possession of homestead land appears to have
19 a depressing effect. However, the depressing effect of homestead land on average dominates the
20 boosting effect of farmland. Further analysis shows that, the positive effect of farmland is
21 strengthened when the asset function of contracted farmland is strong, while the negative effect of
22 homestead land is reduced when migrants have purchased housing in the host cities. The paper also
23 identifies the mediating effect of local social security insurance in the impacts of hometown
24 landholding on rural migrants' integration intentions as well as the heterogeneity of such impacts
25 across age-cohorts and subgroups associated with different connection levels to hometowns.

26 **Key words:** landholdings; integration intention; migrants; urban China; hometown attachment

27

28 **1 Introduction**

29 Migrants' socio-economic integration into the host society is crucial for both social stability
30 and sustainable development (Hainmueller et al., 2017; Waters and Jiménez, 2005). Numerous
31 studies have examined migrants' integration in different countries, exploring the theoretical
32 mechanisms (Goldstein and White, 1985; Gordon, 1964; Portes and Zhou, 1993), the measurements
33 (Forrest and Kearns, 2001; Kearns and Whitley, 2015) and determinants of migrants' integration
34 (Hainmueller et al., 2017; Kearns and Whitley, 2015; Zou and Deng, 2022) . Given China has
35 experienced the largest scale of rural-urban migration in human history and urbanization is one of
36 the fundamental propels of China's modernization and socio-economic development (United
37 Nations, 2014; World Bank and DRC, 2013), the issue of rural migrants' socio-economic integration
38 in their host cities have recently attracted growing attention in the literature (Wang and Fan, 2012 ;
39 Yue et al., 2013; Chen and Wang, 2015; Chen and Liu, 2016; Zou, Chen and Chen, 2020).

40 Existing studies on Chinese migrants have primarily focused on the measurement as well as
41 the influencing factors of their integration status in cities, yet limited attention has been given to
42 migrants' willingness to integrate. Migrants' integration intention in this paper refers to migrants'
43 willingness to get integrated in various domains of economic world and social life in the destination.
44 Intention matters greatly for behavior outcomes but they are two different processes, as intention
45 mainly derives from internal attitudes and subjective judgments while observed behavior outcomes
46 are significantly impacted by external forces that are often out of one's control (Dang et al., 2019;
47 Toruńczyk-Ruiz and Brunarska, 2020). For the purpose of guiding policy making, knowledge on
48 migrants' integration intention sometime could be more valuable than knowledge on their
49 integration status as the former reveals more on the real internal motivations of migrants under fewer
50 disturbances of external constraints. For example, some literature has found migrants' internal
51 intentions are often overlooked in the design of integration policies (Tang et al., 2016). Further,
52 integration intention also differs from settlement intention as it is highly possible that a migrant
53 could have strong intention to settle down in the host city but no interests in getting integrated into
54 the local society, and vice versa. It thus contains both academic interests and practical values to
55 study migrants' integration intention.

56 Meanwhile, existing studies on migrants' integration generally neglect the role of rural

57 landholdings. Rural land, as one of migrants' ties to the countryside, functions as an important asset
58 as well as a source of security for rural residents (Pal et al., 2021; VanWey, 2005). The possession
59 of hometown land is likely to play an important role in rural migrants' senses of "place attachment"
60 to hometown which refers to an emotional bond with a given place (Lewicka, 2011). Recent
61 literature has suggested that place attachment acts as an important mediator between migrants' social
62 integration and settlement intention (Toruńczyk-Ruiz and Brunarska, 2020). Several studies have
63 examined the relationship between Chinese rural migrants' possession of hometown land and their
64 migration decisions (Giles and Mu, 2018; Mullan et al., 2011; Xiao and Zhao, 2018), as well as their
65 choices or outcomes in the host cities including their willingness to transfer *hukou* status from rural
66 to urban (Gu et al., 2020; Hao and Tang, 2015), settlement intention (Tang et al., 2016), and income
67 levels (Hao, 2021). However, to our best knowledge, no previous studies have explicitly examined
68 the relationship between hometown landholdings and rural migrants' willingness to integrate into
69 the host urban society.

70 To bridge these research gaps, this paper first develops an analytic framework to understand
71 how hometown landholdings may affect rural migrants' integration intention in the destination city.
72 Further, based on a large national micro-level dataset extracted from the 2017 China Migrants
73 Dynamic Survey (CMDS), we empirically test the relationship between hometown landholdings
74 and rural migrants' integration intention in urban China. It is noted that, in China, land in the
75 countryside is collectively owned by villagers, but its use right is possessed by individual villagers
76 (Brandt et al., 2002). Throughout the paper we discuss the possession of use rights of rural land
77 rather than land ownership.

78 Our work contributes to existing literature in three respects. First, we conceptualize that
79 hometown landholding affects rural migrants' integration intention in the cities through the asset
80 effect, the security effect and the emotional attachment effect, offering an analytic framework to
81 examine this topic. Second, we provide a robust empirical investigation of the relationship between
82 rural migrants' landholdings in the countryside and their willingness to integrate into the host urban
83 society, taking advantage of a large national-level dataset as well as the unique institutional setting
84 that rural farmers could not exchange their landholdings on the market. That is, rural migrants' status
85 of rural landholdings is in most cases exogenous rather than endogenous, which greatly helps to

86 alleviate the potential endogeneity issue in the empirical analysis. Third, by exploiting the great
87 spatial-temporal heterogeneity in China as well as acknowledging that rural migrants are a vastly
88 heterogeneous group, we uncover the significant heterogeneity of the relationship between
89 hometown landholding and integration intention of rural migrants across different regions and
90 different generations.

91 The remainder of the paper is arranged as follows. Section 2 provides brief background and
92 reviews existing studies on migrants' integration as well as their integration intention. Section 3
93 provides theoretical analysis and research hypotheses. Section 4 discusses data and methodology.
94 The empirical findings are presented in Section 5. Section 6 concludes the paper with discussions
95 of policy implications.

96

97 **2 Related literature**

98 **2.1 Literature on integration and its underlying factors**

99 Migrants' integration into the local society has long been an important policy concern
100 worldwide (Goldstein and White, 1985; Gordon, 1964). Although integration is a complex and
101 contested concept, most scholars agree that integration is a multi-faced process involving structural
102 integration, economic integration, social integration, cultural integration, and psychological
103 integration (Hainmueller et al., 2017; Robinson, 2010; Toruńczyk-Ruiz and Brunarska, 2020).
104 Migrants' integration might take generations to fulfill, with very different trajectories, for example,
105 segmented integration where migrants are integrated well economically while keeping their ethnic
106 culture and customs unchanged or spatially separated (Portes and Zhou, 1993; South et al., 2005).
107 The heterogeneity of integration trajectories may result from both migrants' socio-economic
108 characteristics and local institutional contexts (Benson, 2010; Gordon, 1964). It might also reflect
109 migrants' self-selection behaviors, their willingness to integrate and efforts towards integration
110 (Chiquiar and Hanson, 2005; McKenzie and Rapoport, 2010).

111 Previous studies have examined three groups of determinants of integration, including socio-
112 economic status, demographic and life-cycle variables, and mobility attributes (Forrest and Yip,
113 2007; Robinson, 2010; Zhu et al., 2012; Wang and Fan, 2012; Chen and Wang, 2015; Wang et al.,
114 2016; Liu et al., 2018). Significant attention has been given to migrants' ties to the host urban society

115 but relatively less is placed on their ties to hometown.

116 **2.2 Literature on migrants in China and their integration**

117 China has witnessed enormous migration waves in the past four decades (United Nations,
118 2014). In the Chinese context, migrants refer to those who do not live in the place where they hold
119 local *hukou* status (household registration), noting that the *hukou* system plays an important role in
120 determining one's access to local public services and social benefits (Afridi et al., 2015). As
121 admitted by the Chinese central government in the National Plan for New Urbanization (2014-2020),
122 while migrants have reached 234 million and accounted for one third of total urban population in
123 the year of 2013, most of them did not have the same access to local public services as local residents
124 due to institutional barriers such as the *hukou* system (The State Council, 2014). According to the
125 latest population census, the number of migrants in China exceeded 375 million at the end of 2020
126 (NBSC, 2021). In this paper we focus on rural-to-urban migrants, which accounts for more than
127 three quarters of migrants in China.

128 Numerous studies have examined the determinants of Chinese rural migrants' socio-economic
129 integration into the host urban society. The literature has indicated that the *hukou* system acts as the
130 major barrier to migrants' integration in cities (Afridi et al., 2015; Niu and Zhao, 2018; Wang and
131 Fan, 2012; Wu and Treiman, 2004). In recent years, the circular nature of migration in China has
132 experienced some significant changes, as many migrants obtain stable employment and stay longer
133 at destination cities (Chen and Wang, 2019). However, migrants with permanent settlement intention
134 are still a minority (Lin and Zhu, 2022). The *hukou* system has reformed to allow migrants to access
135 some social benefits at destination, such as medical insurance, pension, as well as public rental
136 housing in some cities. However, migrants' access to social benefits is limited compared with that
137 of local residents. This contributes to *hukou*-based social divide between the two groups, which has
138 been shown to exert profound negative impacts on migrants' integration in cities (Liu et al., 2018;
139 Ouyang et al., 2017; Shi et al., 2017; Wang et al., 2016).

140 Besides institutional factors, individuals' socio-economic characteristics, social networks, and
141 neighbourhood types are closely linked with rural migrants' urban integration. For example, high
142 educational attainment, decent jobs and income facilitate rural migrants' integration (Chen and
143 Wang, 2015); those who stay longer in cities tend to integrate in a better way than new arrivals (Yue

144 et al., 2013); families with children are more likely to integrate than single households (Tian et al.,
145 2019). In addition, social networks that provide more interaction opportunities with local residents
146 facilitate integration (Yuan, 2016; Yue et al., 2013). A recent study finds that rural migrants' socio-
147 economic integration varies with the neighbourhoods where they live, i.e., a higher level of socio-
148 economic integration is found among rural migrants who live in formal neighbourhoods, compared
149 with those living in informal neighbourhoods (such as urban villages) (Zou, Chen and Chen, 2020).
150 Moreover, it is found that social-cultural attachment are important factors influencing migrants'
151 settlement intention (e.g., Chen and Liu, 2016; Lin and Zhu, 2022).

152 **2.3 Literature on the association between rural landholding and migration**

153 Existing studies have discussed the effects of landholding on rural residents' migration
154 intention and rural migrants' settlement intention in the host city. It is found that the insecure land
155 tenure and restrictions of land rentals reduce Chinese famers' likelihood of rural-to-urban migration
156 (Giles and Mu, 2018; Mullan et al., 2011). An increase in farmland might boost farmers' migration
157 propensity but reduces their days of out-migration (Xiao and Zhao, 2018). It is also shown that the
158 possession of both farmland and homestead land reduces rural migrants' willingness to convert their
159 *hukou* status from rural to urban (Gu et al., 2020; Hao and Tang, 2015) and their intention to settle
160 in cities (Tang et al., 2016). This is because many migrants are not willing to abandon their rights to
161 land as they may encounter difficulties in settling down in the destination city due to hukou
162 restrictions and their relatively low income (Meng, 2012; Xie and Jiang, 2016).

163 So far existing research on migrants' integration mainly focuses on individual and household
164 characteristics, and ignores the important role of rural land. These studies have analyzed the
165 influencing factors of rural migrants' integration in cities, but have not explored the determinants of
166 migrants' willingness to integrate in the host city. In this paper we extend the literature to investigate
167 the association between hometown landholding and rural migrants' willingness to integrate into the
168 host urban society.

169 **3 Theoretical analysis and hypotheses development**

170 In this section we introduce a conceptual framework to explain the relationship between
171 hometown land and migrants' integration intention in host cities, as shown in Figure 1.

172 **3.1 Institutional background**

173 According to transnational immigration theories, migrants from different countries tend to
174 maintain connections with both their places of origin and destination (Chiquiar and Hanson, 2005;
175 McKenzie and Rapoport, 2010). Like transnational immigrants, Chinese rural migrants have
176 connections with both their hometown and host cities. Moreover, due to *hukou*-related institutional
177 constraints, rural migrants in China are confronted with difficulties in fully integrating into the host
178 city (Afridi et al., 2015; Cheng and Selden, 1994; Wu and Treiman, 2004). Thus, they have
179 incentives to simultaneously maintain two sets of “place attachments”: ties to the host urban society
180 and ties to hometown, so that they can access both emotional and instrumental resources that helpful
181 for accumulating their social capital (Coleman, 1988; Putnam, 1995).

182 The human-land relationship is at the core of the rural system, and the regulation of land use
183 function decisively governs the process of multifunctional rural development (Jiang et al., 2022;
184 Long et al., 2022). In China, the rights to use contracted farmland and homestead land in a rural
185 community unit (“rural collective”) are granted freely to members of this community per household
186 basis (Brandt et al., 2002). Contracted farmland is restricted for certain agricultural purposes (Ma et
187 al., 2020), while homestead land is limited only for the purpose of constructing homes for self-use
188 (Gu et al., 2020). The use rights of the two types of land are not allowed to be freely traded on the
189 open market according to the Law of Land Administration. While in recent years the lease market
190 of the use rights of contracted farmland has steadily expanded under the government’s promotion
191 (Ma et al., 2020), the lease of the use rights of homestead land or housing built upon it is still heavily
192 restricted and commonly can be conducted only amongst members of the same rural collective (Xu
193 et al., 2022).

194 While it is true that in June 2021 the Regulation for the Implementation of the Law of Land
195 Administration was revised to formally allow residents who hold rural *hukou* but have settled down
196 in the cities to voluntarily return the use rights of their land on compensation basis to their rural
197 communities, such cases are still very rare. The reason is that rural migrants could not “sell” land to
198 people outside their communities under the collective land ownership and thus the compensation of
199 returning land to the community organization is generally very low (Gu et al., 2020; Xu et al., 2022).
200 Meanwhile, since the land is allocated freely and could be used indefinitely (Brandt et al., 2002),

201 rural migrants have no internal incentives to voluntarily return the land to the community and
202 generally choose to keep it even if they do not put it into use (Hao, 2021; Lyu et al., 2020). The low
203 efficiency of rural land use heavily restricts rural-urban migration as well as urban development
204 (Hao and Tang, 2015; Liu et al., 2020). The huge waste of rural land and housing resources,
205 alongside with the growing concurrence of industrial lag and rural hollowing (Jiang et al., 2022;
206 Long et al., 2012), has been long recognized as a serious challenge for the sustainable urbanization
207 in China (The State Council, 2014).

208 Hometown land is crucial for rural migrants because it is an important asset and a reliable
209 source of livelihood (Hao, 2021; VanWey, 2005). Rural land is also a source of security which can
210 alleviate the uncertainty and reduce the cost of migration to the city (Ma et al., 2020; Xiao and Zhao,
211 2018). Two important reasons for many migrants to keep their land in hometown are the security
212 need to live on the farmland in case of job loss in the city and the shelter need when returning back
213 home after getting old (Gu et al., 2020; Zhu, 2007). Moreover, rural land carries migrants' emotional
214 attachment to hometown. Therefore, hometown land is likely to exert significant impacts on
215 migrants' integration intention in cities.

216 For most rural migrants who still keep their membership status in their original rural collectives,
217 the only scenario that they exchange the possession rights of their hometown land for money is
218 when the land is acquired by the local state through the land expropriation system (Brandt et al.,
219 2002; Wu et al., 2022). Nonetheless, the expropriation is decided by the local state according to their
220 economic development planning, which means the variations of hometown landholding among rural
221 migrants are largely exogenous to our analysis. This provides a unique advantage to analyze the
222 relationship between hometown landholding and rural migrants' integration intentions in the
223 Chinese context.

224 **3.2 Hypothesis development**

225 Two types of rural land have different functions and attributes, which may exert different
226 effects on migrants' integration intention in cities. First, their asset functions are different. For
227 contracted farmland, in recent years its use right can either be transacted, generating revenue, or
228 leased to yield rental income (Ma et al., 2020). Contracted farmland as an income-generating asset
229 can boost migrants' income (Hao, 2021), which might increase their willingness to integrate in cities,

230 as they have more resources to integrate into the local society. However, homestead land, still legally
231 restricted to be traded in the open market, cannot generate income unless the housing built upon it
232 is rented, which usually occurs in city outskirts where demand for peasants' housing is high. Second,
233 their security functions are different. With limited access to subsidized housing in cities due to lack
234 of local *hukou* status, many migrants find it difficult to afford housing in cities. Homestead land in
235 hometown provides a retreat for migrants whenever they decide to return back to hometown. The
236 possession of homestead land will thus reduce rural migrants' incentives or pressures to integrate in
237 the city. On the other hand, farmland in China is subject to strict land use constriction, and thus
238 could not provide a shelter place for return migrants. Third, their strengths of hometown attachment
239 are different. Rural land is associated with migrants' emotional attachment to hometown as
240 landholding is an important tie to hometown. Migrants with hometown landholding are more likely
241 to have more emotional bonds with their hometown, such as returning hometown more frequently,
242 and interacting more with hometown villagers. Rural land as migrants' emotional attachment to
243 hometown is likely to exert negative effects on migrants' integration intention in cities. However,
244 we expect that homestead land, through the emotional bond of home building constructed upon it,
245 would carry stronger emotional attachment to hometown than farmland. Considering the prevalent
246 insecurity of farmland tenure in China (Giles and Mu, 2018; Mullan et al., 2011), as well as the
247 rising secure value of homestead land against the skyrocketing housing price in Chinese cities, we
248 propose that the depressing effect of homestead land on integration intention is on average larger
249 than the boosting effect of farmland. Therefore, we propose the following hypotheses.

250 **Hypothesis 1: Rural migrants' integration intention is the highest when they only possess**
251 **contracted farmland in their hometown, second when they possess no land, third when they**
252 **possess both types of land, and lowest when they possess only homestead land.**

253 High housing price in cities is likely to deter migrants' integration intention, especially when
254 they have retreat solution secured by their homestead land at hometown. However, it is reasonable
255 to expect that, the negative effect of homestead land on migrants' integration intention might be
256 reduced after migrants have already purchased houses in the host cities, especially in eastern China¹

¹ Eastern China refers to the provinces and cities located along the east coast which have witnessed rapid economic growth since the initiation of the opening-up policy in 1978. In our data, it includes 11 provinces and

257 where many job opportunities and urban amenities exist. The following hypothesis is derived.

258 **Hypothesis 2: The negative effect of rural homestead land on rural migrants' integration**
259 **intention is reduced when rural migrants have purchased housing in eastern China.**

260 In addition, social insurance in the host cities serves to reduce migrants' financial risks and
261 increases their sense of security, which increases the attraction to settle in the city. Migrants with
262 social insurance are associated with more stability in economic status and have more opportunities
263 to utilize economic and social resources to prepare for long-term residence (Cao et al., 2015).
264 Furthermore, social insurance may shape migrants' settlement intention through its impact on their
265 enhanced sense of place attachment to the local society (Huang et al., 2020). Compared with China's
266 relatively underdeveloped western regions, the coverage of social insurance in China's prosperous
267 eastern regions is much higher. Thus, it is reasonably expected that, the impact of hometown
268 landholding, no matter which type of land, will be greatly weakened when migrants are covered by
269 the social insurance system in the host cities, especially in eastern China where living costs are
270 higher compared with other regions. Therefore, we propose the third hypothesis as below.

271 **Hypothesis 3: The effect of hometown landholding, for any type of land, on rural migrants'**
272 **integration intention is weakened when rural migrants participate in the urban social**
273 **insurance system in eastern China.**

274 As widely discussed in previous studies, new-generation migrants, who are defined as those
275 born after 1980, have little experience, expertise and interest in agricultural work (Chen and Wang,
276 2015). However, due to their young age and a limited amount of savings, new-generation migrants
277 are more likely to confront with financial pressure in cities compared with old-generation migrants.
278 The asset effect of land resources in hometown may thus be less powerful to cushion the high living
279 costs in the city for new-generation migrants. Meanwhile, as they are likely to accumulate relatively
280 less social capital in the urban society, they may have stronger intention to return back to hometown
281 while not necessarily taking up farmland work. Thus, we expect the depressing effect of hometown
282 landholdings on integration intention would be stronger for new-generation migrants. Moreover, we
283 expect the depressing effect of hometown landholdings would be stronger on migrants with more

cities such as Beijing, Tianjin, Hebei, Liaoning, Shanghai, Jiangsu, Zhejiang, Fujian, Shandong, Guangdong and Hainan.

284 intensive connections with hometown, since the effect of emotional attachment to hometown would
285 be amplified with the bond of land possession in hometowns. Thus, we propose the fourth
286 hypothesis as following:

287 **Hypothesis 4: Differences exist in the effect of hometown landholding on rural migrants’**
288 **integration intention, across different age cohorts and subgroups with different connections**
289 **to hometown.**

290

291 **4 Data and methodology**

292 **4.1 Data**

293 Our data come from the 2017 China Migrants Dynamic Survey (CMDS), organized by the
294 National Population and Family Planning Committee. This large-scale nationwide sample survey of
295 migrants was conducted in popular migration destinations in all provincial-level region units. The
296 probability proportionate to size (PPS) sampling method was employed to select interviewees. The
297 target group is migrants aged above 15 who do not have local *hukou* status and had resided in the
298 host cities for over one month at the time of the survey. The dataset of CMDS provides information
299 of migrants and their family members, such as their migration experiences, employment and social
300 security, income and expenditure, housing, social integration and mental health. We focus on
301 migrants who hold rural *hukou* status. After deleting samples with missing information of key
302 variables, the sample size in our paper is 88,387 individuals.

303 Our dependent variable, integration intention, is measured by the question in the survey, i.e. ‘I
304 am willing to integrate into the local society and be part of it’. This question directly reflects
305 migrants’ subjective integration intention. Respondents answered the question using a four-point
306 likert scale (1 disagree completely; 2 disagree; 3 agree slightly; 4 agree completely). Migrants who
307 answered “agree completely” have the highest level of integration intention, and those who
308 answered “disagree completely” have the lowest level of integration intention.

309 The independent variable, land in hometown, is measured by two questions, i.e., ‘Do you have
310 contracted farmland in your hometown?’ and ‘Do you have homestead land in your hometown?’.
311 Responses classified as “unclear” are excluded. They are divided into four categories: without any
312 land, with farmland only, with homestead land only and with both types of land.

313 Following previous studies, we construct a series of control variables, including socio-
314 demographic characteristics, migration patterns, housing characteristics, city characteristics and
315 provincial dummies (e.g. Wang and Fan, 2012; Wang et al., 2016; Chen and Wang, 2019). Gender,
316 age, household composition, education, occupation, income and access to medical insurance are
317 included into the model, as these variables are likely to influence migrants' integration intention.
318 Participation in the urban social insurance system can also affect migrants' integration intention as
319 it provides resources at destination cities (Huang et al., 2020). Migration patterns, such as trans-
320 provincial migration may affect migrants' integration intention, as long-distance migrants tend to
321 encounter more difficulties in getting familiar with local culture and customs (Chen and Wang,
322 2015), and the cultural and dialect differences may discourage them from integration. Length of stay
323 in the host community may also affect migrants' integration intention, and is therefore included into
324 the model (Robinson, 2010). Housing tenure in cities can affect migrants' integration intention, as
325 homeowners may be more willing to integrate (Forrest and Yip, 2007; Zhu et al., 2012; Wang et al.,
326 2016; Liu et al., 2018). In addition, the characteristics of the host city are also important factors
327 affecting migrants' integration intention (Dang et al., 2019; Liu and Wang, 2020; Zou and Deng,
328 2022). We divide the cities into three categories: first-tier cities, second-tier cities and third-tier cities
329 and below, according to their development levels and population sizes (Zou, Chen and Chen, 2020).
330 There might be other city-level factors which influence migrants' integration intention, such as
331 average wage and industrial structure. Due to data availability, we do not include them in our
332 modules because the inclusion results in a significant reduction of the sample size. Therefore we
333 use the variables of first-tier, second-tier and other cities as proxies for city-level development.

334 Table 1 displays a summary statistical description of key variables. Among all samples, 48.01%
335 are female and 51.94% are aged below 35. They have relatively low educational attainment; 68.33%
336 have junior high schooling or below, and only 11.09% have diplomas from colleges or universities.
337 Meanwhile, 60.10% are manufacturing workers or low-skilled staff, followed by businessmen
338 (28.84%). Further, only 21.65% have access to local medical insurance but 45.53% have access to
339 local social insurance. Many rural migrants brought their families to the host cities, 74.92% live
340 with spouses and 53.22% live with children in the host cities. As to length of stay, 60.92% of rural
341 migrants have stayed in the host cities for more than one year. More than half (51.06%) of rural

342 migrants move across provincial boundaries. In the host cities, most rural migrants are still
343 accommodated in rental housing but the proportion of rural migrants owning home has increased to
344 22.28%, as opposed to 9.93% in 2014 reported in previous studies (Zou, Chen and Chen, 2020).

345 Our primary interest is rural migrants' landholding in their hometown. According to Table 1,
346 about 23.21% of rural migrants in our study do not possess any type of rural land, 8.19% possess
347 farmland only, 22.86% possess homestead land only; and the remaining 45.75% possess both types
348 of land. Furthermore, to analyze the characteristics of rural migrants possessing rural land, we divide
349 the sample according to rural landholdings, which is shown in Table 2. The four groups appear to
350 be associated with different demographic-economic characteristics but no immediate discernable
351 pattern can be identified.

352

353 **4.2 Methodology**

354 As mentioned above, integration intention of rural migrants is coded as an ordered variable
355 with four categories. Therefore, we use multivariate ordered logit model (OLM) which does not
356 require variables to satisfy normal distribution or equal variance as the benchmark model. The
357 specific formula is as follows,

$$P(y = j | X_i) = \frac{1}{1 + e^{-(\alpha + \beta X_i)}} \quad (1)$$

358 X_i indicates the i th influencing factor, y represents the probability of a certain degree of
359 integration willingness of rural migrants, and gives each willingness selection order Y values
360 starting from 1. Then the cumulative logit model is established as follows.

$$\ln\left[\frac{P_j}{P(1 - P_j)}\right] = \alpha_0 + c\text{Land}_i + \alpha_i X_i + \varepsilon_i \quad (2)$$

361 Here, P_j is the probability of the dependent variable (the individual rural migrant's integration
362 intention) taking the value of class j . Land_i represents migrants' landholding status in hometown.
363 Control variables X_i include migrants' socio-demographic characteristics, mobility attributes,
364 housing characteristics, city characteristics and provincial dummies. α_0 is the constant term; α_i
365 are the correlation coefficients of control variables and ε_i is the random error term.

366 Further, we test the underlying mechanism by using interaction terms to verify the asset effects
367 of farmland, security and emotional attachment to hometown. The specific steps are as follows:

$$Integration_intention_i = \alpha_0 + c'Land_i + bIntermediary_vari + cLand_i * Intermediary_vari + \alpha_1 X_i + \varepsilon_3 \quad (3)$$

368 Where $Integration_intention_i$ represents rural migrants' integration intention and X_i is
 369 the set of control variables. $Intermediary_var_i$ represents the intermediary variables. We use the
 370 intermediary variables of 'farmland revenue' and 'hometown location' to test the asset effect of rural
 371 land. The variables of 'eastern China', 'homeownership' are used to assess the differentiated effect
 372 of rural landholding in hometown in Hypothesis 2. The variable of 'social insurance' and 'eastern
 373 China' are used to assess the weakening effect of land on integration intention in Hypothesis 3.
 374 Finally, the variables of 'the frequency of going back to hometown' and 'interaction with hometown
 375 villagers' are employed to test the effects of emotional attachment to hometown for different
 376 generations, as we discuss in Hypothesis 4.

377

378 **5 Empirical results and discussions**

379 **5.1 Integration intention of rural migrants with different landholdings**

380 Figure 2 displays the distribution of average score of integration intention of rural migrants
 381 with different landholding in their hometown. It shows that, those who only possess contracted
 382 farmland have the highest integration intention, while those only possessing homestead land have
 383 the lowest integration intention. Figure 2 intuitively suggests that rural homestead land and
 384 contracted farmland may have different impacts on rural migrants' integration intention, but such
 385 proposition needs further robust empirical validation.

386 **5.2 Benchmark model results**

387 We first use OLM to estimate the benchmark results. The control variables, including socio-
 388 demographic characteristics, household characteristics, migration patterns, housing characteristics,
 389 city characteristics and provincial dummies, are added gradually. The estimation results are reported
 390 in Table 3.

391 According to Table 3, gender does not have significant impacts on integration intention, but
 392 older and highly-educated rural migrants generally have stronger integration intention. Regarding
 393 occupation, compared with rural migrants who have irregular employment, manufacturing workers
 394 have weaker integration intention. In addition, access to both medical insurance and social insurance
 395 has a significant positive impact on integration intention. Regarding household characteristics,

396 migrating together with spouses does not has a significant impact on integration intention, while
397 migrating together with children has a positive effect. Further, homeowners are positively associated
398 with higher integration intention. Those migrants who have stayed longer in the host cities or
399 experienced intra-provincial migration also have a higher level of integration intention. Compared
400 with migrants who live in third-tier cities and below, those living in second-tier cities have a lower
401 level of integration intention. These findings are consistent with previous studies. In the following
402 sections we focus on the relationship between rural land and integration intention.

403 The results in Table 3 show that the possession of contracted farmland only is positively
404 associated with rural migrants' integration intention, while the possession of homestead land only
405 is negatively associated with integration intention. That is, compared with migrants without any
406 land, those possessing only farmland have higher integration intention, while those with homestead
407 land only have lower integration intention. When migrants possess two types of land, the negative
408 effect of homestead land is greater than the positive effect of contracted farmland, resulting in the
409 net negative effects. When more control variables are added, the coefficients of hometown land
410 become smaller, as expected.

411 However, the estimation coefficient of OLM only reflects the direction of the effect of rural
412 land on migrants' integration intention. It does not provide a direct estimate of the magnitude of this
413 effect. To get a sense of the size of the land impact, we further estimate the marginal effect of the
414 ordered logit. The results for the case of strong integration intention ("agree completely" to be
415 integrated) are reported in Table 4. According to Column 3 of Table 4 (Model 3), compared with
416 that of rural migrants without any hometown land, the level of strong integration intention for rural
417 migrants who only possess contracted farmland is 1.71% higher on average, but the level for rural
418 migrants who only possess homestead land is 2.18% lower on average; and that for migrants
419 possessing both land is 1.49% lower. When we estimate the model by alternative outcomes of
420 integration intention, i.e., 'agree slightly' or 'disagree' or 'disagree completely' to be integrated, the
421 results remain similar². Thus, hypothesis 1 is supported.

422

² Due to space constraints, only marginal effects of strong integration intention (= Agree completely) are reported in the paper. The marginal effect estimates for other measures of integration intentions are available upon request.

423 **5.3 Mechanism testing and impact heterogeneity**

424 The results from the descriptive statistical analysis and baseline regression models have
425 suggested that rural land is associated with migrants' integration intention. In this section we explore
426 how these observed associations are derived from the asset effects of rural farmland, the security
427 effect and the effect of emotional attachment to hometown. These effects influence migrants'
428 willingness to integrate in cities.

429 In order to test the asset effect, we introduce two variables, i.e. "farmland revenue" and
430 "hometown location" into the models. Farmland revenue is measured by the question in the survey,
431 i.e. 'What is the average annual income per mu of contracted farmland by your family?' Hometown
432 location is measured by the question 'Where is your hometown located?' Hometown in non-rural
433 areas is recorded as 1, 0 otherwise. The results in column (1) in Table 5 show that farmland revenue
434 is positively associated with migrants' integration intention. When farmland revenue increases one
435 unit (2.72 yuan), rural migrants' level of strong integration intention increases by 0.71%. In addition,
436 as show in column (2) in Table 5, the interaction term between possessing both types of land and
437 hometown location is positively associated with integration intention. When farmland and
438 homestead land are located approximate to urban areas, rural migrants' level of strong integration
439 intention increases by 2.19%. Therefore, farmland and homestead land located near urban areas
440 provide more asset values, which improve rural migrants' integration intention.

441 To test Hypothesis 2, additional variables (eastern China and homeownership) are introduced
442 into the model. Migrants' integration intention is lower for those living in cities in eastern China
443 where living costs are higher compared with other regions. Column (3) in Table 5 indicates that the
444 interaction term between possessing homestead land only and eastern China is not significantly
445 correlated with migrants' integration intention. Column (4) in Table 5 demonstrates that the
446 interaction term among possessing homestead land, eastern China and homeowner, is positively
447 associated with migrants' integration intention. These results support Hypothesis 2 that the negative
448 effect of rural homestead land on rural migrants' integration intention is reduced when rural migrants
449 have purchased housing in eastern China.

450 Further, column (5) in Table 5 shows that the interaction term of social insurance and
451 landholdings is not statistically significant. However, when the variable eastern China is further

452 introduced into the interaction term, column (5) in Table 5 implies that social insurance in eastern
453 China have greatly weakened the negative effect of rural land on rural migrants' integration
454 intentions. Therefore, Hypothesis 3 is confirmed.

455 To test Hypothesis 4, additional variables (dummy of new-generation, eastern China, frequency
456 of returning hometown, interacting with hometown villagers) are introduced into the models. The
457 estimation results reported in column (1) in Table 6 show that the interaction term between the two
458 dummies of "possessing farmland only" and "new-generation" is negatively associated with
459 integration intentions, suggesting that the boosting effect of farmland on integration intention is
460 weaker among new-generation migrants as compared with old-generation migrants. In addition,
461 column (2) in Table 6 shows that the interaction term of possessing farmland only, eastern China
462 and new generation is negatively correlated to integration intentions of migrants. One explanation
463 is that the asset effect of contracted farmland in hometown is less effective for new-generation
464 migrants to cope with the high living costs in the city. Further, column (3) in Table 6 indicates that
465 the interaction term of possessing farmland only, returning home more frequently and new
466 generation is negatively correlated to migrants' integration intention. Finally, column (4) in Table 6
467 suggests that the interaction term of possessing farmland only, interacting with hometown villagers
468 and new generation is also negatively correlated to migrants' integration intention. These findings
469 suggest that the positive effects of farmland on integration intention is further reduced for new-
470 generation migrants with stronger emotional attachment to hometown, proxied by frequent
471 hometown visiting and interaction with members in the same villager. These findings render
472 supports to Hypothesis 4.

473

474 **6 Conclusions and policy implications**

475 While previous studies have paid due attention to the extent of rural migrants' integration in
476 Chinese cities, there are surprisingly few empirical studies which examine the determinants of their
477 willingness to integrate, especially the role of landholding at home villages. This paper extends the
478 literature by developing an analytical framework and then empirically examining the association
479 between hometown land and rural migrants' integration intention in urban China.

480 Our results show that rural migrants' integration intention is positively associated with the

481 possession of contracted farmland in hometown but negatively associated with the possession of
482 homestead land in hometown. When migrants possess both types of land, the negative effect of
483 homestead land exceeds the positive effect of contracted farmland, resulting in the total negative
484 effect. Further analysis shows that rural land impacts on rural migrants' integration intention through
485 the asset effect, the security effect and the emotional attachment effect. The positive effect of rural
486 contracted farmland on migrants' integration intention is strengthened as contracted farmland acts
487 as a valuable asset, especially when their hometown is located in the urban fringe. However,
488 homestead land in migrants' hometown can decrease their integration intention. Such effects are
489 reduced when migrants purchased housing in the host cities in eastern China. In addition, the effect
490 of rural land on migrants' integration intention is greatly weakened when migrants have access to
491 social insurance in eastern China. We also find the significant heterogeneity in the association
492 between hometown landholdings and integration intention across different generations. The positive
493 effect of possessing contracted farmland on integration intention is weakened for new-generation
494 migrants compared with old-generation migrants. This may be due to the fact that new-generation
495 migrants are confronted with greater financial constraints, and working and living pressures than
496 old-generation migrants in cities with high living costs. This hinders their willingness to integrate.
497 Findings in this paper carry several direct implications for policies governing integration of rural
498 migrants in the cities as well as urban-rural integrated development.

499 First, our analyses suggest that hometown landholding plays important roles in shaping the
500 integration intentions of rural migrants in the host urban society through the mechanisms of the asset
501 effect, the security effect and the emotional effect. Therefore, to improve rural migrants' willingness
502 to get integrated in the cities, the following reform proposals under debate or at the pilot experiment
503 stage are recommended, i.e. the reforms that could help to expand the lease market of the use rights
504 of farmland and then to increase its rental income or asset value (Ma et al. 2020); the reforms that
505 could incorporate idle homestead land into an integrated urban-rural land market and capitalize the
506 possession rights of homestead land through some form of market-led nationalization (Wu et al.
507 2018); and the reforms that could help to put idle farmhouse into lease use or to construct rental
508 housing blocks serving urban residents upon homestead land after land consolidation in order to
509 construct an integrated urban-rural housing system (Lyu, Yu, and Hu 2020).

510 Second, according to the analysis in this paper, the reforms recommended above can also
511 greatly help to promote rural vitalization and achieve urban-rural integrated development. Notably,
512 some relevant policies or pilot policy experiments have been introduced to address the increasingly
513 acute imbalance between the supply and demand of rural land use functions in recent years (Jiang
514 et al. 2022). However, there is still a large scale of idle homestead land together with a significant
515 number of vacant rural housing in the countryside (Lyu, Yu, and Hu 2020; Gu et al. 2020). The
516 findings of this paper, by shedding light on potential gains from coordinated development of rural
517 population-land-economy, can help to promote urban-rural integrated development too.

518 Third, the paper identifies the mediating effect of local social security insurance in the impacts
519 of hometown landholding on rural migrants' integration intentions as well as the vast heterogeneity
520 of such impacts across age-cohorts and subgroups associated with different connection levels to
521 hometowns. This implies that, the expansion of social insurance should be placed with priority to
522 increase rural migrants' willingness to get integrated in the host cities. Meanwhile, the government
523 should adopt differential approaches to enhance integration intention across rural migrants with
524 different personal traits.

525 This study adds to the literature by exploring the association between hometown land and
526 integration intention for different rural migrant groups. However, the paper has not well taken
527 account of how most recent changes of rural land use regulations may impact our major findings.
528 Considering the importance of the topic for both social harmony and urban-rural integrated
529 development, further research is warranted..

530

531 **References**

- 532 Afridi, F., Li, S.X., Ren, Y., 2015. Social identity and inequality: The impact of China's hukou system. *J. Public*
533 *Econ.* 123, 17–29. <https://doi.org/10.1016/j.jpubeco.2014.12.011>
- 534 Benson, M.C., 2010. The Context and Trajectory of Lifestyle Migration. *Eur. Soc.* 12, 45–64.
535 <https://doi.org/10.1080/14616690802592605>
- 536 Brandt, L., Huang, J., Li, G., Rozelle, S., 2002. Land Rights in Rural China: Facts, Fictions and Issues. *China J.* 47,
537 67–97. <https://doi.org/10.2307/3182074>
- 538 Cao, G., Li, M., Ma, Y., Tao, R., 2015. Self-employment and intention of permanent urban settlement: Evidence
539 from a survey of migrants in China's four major urbanising areas. *Urban Stud.* 52, 639–664.
540 <https://doi.org/10.1177/0042098014529346>
- 541 Chen, J., Wang, W., 2019. Economic incentives and settlement intentions of rural migrants: Evidence from China. *J.*
542 *Urban Aff.* 41, 372–389. <https://doi.org/10.1080/07352166.2018.1439339>
- 543 Chen, S., Liu, Z., 2016. What determines the settlement intention of rural migrants in China? Economic incentives
544 versus sociocultural conditions. *Habitat Int.* 58, 42–50.
545 <https://doi.org/http://dx.doi.org/10.1016/j.habitatint.2016.09.004>
- 546 Chen, Y., Wang, J., 2015. Social integration of new-generation migrants in Shanghai China. *Habitat Int.* 49, 419–

547 425. <https://doi.org/10.1016/j.habitatint.2015.06.014>

548 Cheng, T., Selden, M., 1994. The Origins and Social Consequences of China's Hukou System. *China Q.* 139, 644–

549 668. <https://doi.org/10.1017/S0305741000043083>

550 Chiquiar, D., Hanson, G.H., 2005. International Migration, Self-Selection, and the Distribution of Wages: Evidence

551 from Mexico and the United States. *J. Polit. Econ.* 113, 239–281. <https://doi.org/10.1086/427464>

552 Coleman, J.S., 1988. Social Capital in the Creation of Human Capital. *Am. J. Sociol.* 94, S95–S120.

553 <https://doi.org/10.1086/228943>

554 Dang, Y., Chen, Y., Dong, G., 2019. Settlement intention of migrants in the Yangtze River Delta, China: The

555 importance of city-scale contextual effects. *Popul. Space Place* 25. <https://doi.org/10.1002/psp.2270>

556 Forrest, R., Kearns, A., 2001. Social Cohesion, Social Capital and the Neighbourhood. *Urban Stud.* 38, 2125–2143.

557 <https://doi.org/10.1080/00420980120087081>

558 Forrest, R., Yip, N.-M., 2007. Neighbourhood and Neighbouring in Contemporary Guangzhou. *J. Contemp. China*

559 16, 47–64. <https://doi.org/10.1080/10670560601026736>

560 Giles, J., Mu, R., 2018. Village Political Economy, Land Tenure Insecurity, and the Rural to Urban Migration

561 Decision: Evidence from China. *Am. J. Agric. Econ.* 100, 521–544. <https://doi.org/10.1093/ajae/aax086>

562 Goldstein, I., White, C., 1985. Residential Segregation and Color Stratification among Hispanics in Philadelphia:

563 Comment on Massey and Mullan. *Am. J. Sociol.* 91, 391–396. <https://doi.org/10.1086/228285>

564 Gordon, M.M., 1964. Assimilation in American life: The Role of Race, Religion, and National Origins, American

565 Sociological Review. Oxford University Press, Oxford. <https://doi.org/10.2307/2090888>

566 Gu, H., Ling, Y., Shen, T., Yang, L., 2020. How does rural homestead influence the hukou transfer intention of rural-

567 urban migrants in China? *Habitat Int.* 105, 102267. <https://doi.org/10.1016/j.habitatint.2020.102267>

568 Hainmueller, J., Hangartner, D., Pietrantonio, G., 2017. Catalyst or Crown: Does Naturalization Promote the Long-

569 Term Social Integration of Immigrants? *Am. Polit. Sci. Rev.* 111, 256–276.

570 <https://doi.org/10.1017/S0003055416000745>

571 Hao, P., 2021. Do landholdings affect social mobility in China? A study of rural migrants in Jiangsu. *Cities* 111,

572 102977. <https://doi.org/https://doi.org/10.1016/j.cities.2020.102977>

573 Hao, P., Tang, S., 2015. Floating or settling down: the effect of rural landholdings on the settlement intention of rural

574 migrants in urban China. *Environ. Plan. A Econ. Sp.* 47, 1979–1999.

575 <https://doi.org/10.1177/0308518X15597131>

576 Huang, Y., Liu, W., Zhuo, Y., Sun, X., 2020. Social insurance participation and urban settlement intentions of China's

577 floating population. *Popul. Space Place* 26. <https://doi.org/10.1002/psp.2366>

578 Jiang, Y., Long, H., Ives, C.D., Deng, W., Chen, K., Zhang, Y., 2022. Modes and practices of rural vitalisation

579 promoted by land consolidation in a rapidly urbanising China: A perspective of multifunctionality. *Habitat Int.*

580 121, 102514. <https://doi.org/https://doi.org/10.1016/j.habitatint.2022.102514>

581 Kearns, A., Whitley, E., 2015. Getting There? The Effects of Functional Factors, Time and Place on the Social

582 Integration of Migrants. *J. Ethn. Migr. Stud.* 41, 2105–2129. <https://doi.org/10.1080/1369183X.2015.1030374>

583 Lewicka, M., 2011. Place attachment: How far have we come in the last 40 years? *J. Environ. Psychol.* 31, 207–230.

584 <https://doi.org/10.1016/j.jenvp.2010.10.001>

585 Lin, L., Zhu, Y., 2022. Types and determinants of migrants' settlement intention in China's new phase of urbanization:

586 A multi-dimensional perspective. *Cities* 124, 103622.

587 <https://doi.org/https://doi.org/10.1016/j.cities.2022.103622>

588 Liu, G., Wei, L., Gu, J., Zhou, T., Liu, Y., 2020. Benefit distribution in urban renewal from the perspectives of

589 efficiency and fairness: A game theoretical model and the government's role in China. *Cities* 96, 102422.

590 <https://doi.org/10.1016/j.cities.2019.102422>

591 Liu, L., Huang, Y., Zhang, W., 2018. Residential segregation and perceptions of social integration in Shanghai, China.

592 *Urban Stud.* 55, 1484–1503. <https://doi.org/10.1177/0042098016689012>

593 Liu, T., Wang, J., 2020. Bringing city size in understanding the permanent settlement intention of rural–urban

594 migrants in China. *Popul. Space Place* 26, e2295. <https://doi.org/10.1002/psp.2295>

595 Liu, Z., 2019. Supporting or dragging? Effects of neighbourhood social ties on social integration of rural-to-urban

596 migrants in China. *Hous. Stud.* 34, 1404–1421. <https://doi.org/10.1080/02673037.2019.1577955>

597 Long, H., Li, Y., Liu, Y., Woods, M., Zou, J., 2012. Accelerated restructuring in rural China fueled by 'increasing vs.

598 decreasing balance' land-use policy for dealing with hollowed villages. *Land use policy* 29, 11–22.

599 <https://doi.org/10.1016/j.landusepol.2011.04.003>

600 Long, H., Ma, L., Zhang, Y., Qu, L., 2022. Multifunctional rural development in China: Pattern, process and

601 mechanism. *Habitat Int.* 121, 102530. <https://doi.org/https://doi.org/10.1016/j.habitatint.2022.102530>

602 Lyu, P., Yu, M., Hu, Y., 2020. Contradictions in and improvements to urban and rural residents' housing rights in

603 China's urbanization process. *Habitat Int.* 97, 102101. <https://doi.org/10.1016/j.habitatint.2019.102101>

604 Ma, L., Long, H., Tu, S., Zhang, Y., Zheng, Y., 2020. Farmland transition in China and its policy implications. *Land*

605 *use policy* 92, 104470. <https://doi.org/10.1016/j.landusepol.2020.104470>

606 McKenzie, D., Rapoport, H., 2010. Self-Selection Patterns in Mexico-U.S. Migration: The Role of Migration

607 Networks. *Rev. Econ. Stat.* 92, 811–821. https://doi.org/10.1162/REST_a_00032

608 Meng, X., 2012. Labor Market Outcomes and Reforms in China. *J. Econ. Perspect.* 26, 75–102.

609 <https://doi.org/10.1257/jep.26.4.75>

610 Mullan, K., Grosjean, P., Kontoleon, A., 2011. Land Tenure Arrangements and Rural–Urban Migration in China.

611 *World Dev.* 39, 123–133. <https://doi.org/10.1016/j.worlddev.2010.08.009>

612 Niu, G., Zhao, G., 2018. Identity and trust in government: A comparison of locals and migrants in urban China.

613 *Cities* 83, 54–60. <https://doi.org/10.1016/j.cities.2018.06.008>

- 614 Ouyang, W., Wang, B., Tian, L., Niu, X., 2017. Spatial deprivation of urban public services in migrant enclaves
615 under the context of a rapidly urbanizing China: An evaluation based on suburban Shanghai. *Cities* 60, 436–
616 445. <https://doi.org/http://dx.doi.org/10.1016/j.cities.2016.06.004>
- 617 Pal, S.C., Saha, A., Chowdhuri, I., Roy, P., Chakraborty, R., Shit, M., 2021. Threats of unplanned movement of
618 migrant workers for sudden spurt of COVID-19 pandemic in India. *Cities* 109, 103035.
619 <https://doi.org/https://doi.org/10.1016/j.cities.2020.103035>
- 620 Portes, A., Zhou, M., 1993. The New Second Generation: Segmented Assimilation and its Variants. *Ann. Am. Acad.*
621 *Pol. Soc. Sci.* 530, 74–96. <https://doi.org/10.1177/0002716293530001006>
- 622 Putnam, R.D., 1995. Bowling Alone: America's Declining Social Capital. *J. Democr.* 6, 65–78.
623 <https://doi.org/10.1353/jod.1995.0002>
- 624 Robinson, D., 2010. The Neighbourhood Effects of New Immigration. *Environ. Plan. A Econ. Sp.* 42, 2451–2466.
625 <https://doi.org/10.1068/a4364>
- 626 Shi, Q., Liu, T., Musterd, S., Cao, G., 2017. How social structure changes in Chinese global cities: Synthesizing
627 globalization, migration and institutional factors in Beijing. *Cities* 60, Part A, 156–165.
628 <https://doi.org/http://dx.doi.org/10.1016/j.cities.2016.09.001>
- 629 South, S.J., Crowder, K., Chavez, E., 2005. Migration and spatial assimilation among U.S. latinos: Classical versus
630 segmented trajectories. *Demography* 42, 497–521. <https://doi.org/10.1353/dem.2005.0025>
- 631 Tang, S., Hao, P., Huang, X., 2016. Land conversion and urban settlement intentions of the rural population in China:
632 A case study of suburban Nanjing. *Habitat Int.* 51, 149–158. <https://doi.org/10.1016/j.habitatint.2015.10.023>
- 633 The State Council, 2014. National New Urbanization Planning [WWW Document]. Off. Website State Counc. PRC.
634 URL http://www.gov.cn/xinwen/2014-03/16/content_2639841.htm (accessed 3.16.14).
- 635 Tian, M., Tian, Z., Sun, W., 2019. The impacts of city-specific factors on social integration of Chinese migrant
636 workers: A study using multilevel modeling. *J. Urban Aff.* 41, 324–337.
637 <https://doi.org/10.1080/07352166.2017.1406786>
- 638 Toruńczyk-Ruiz, S., Brunarska, Z., 2020. Through attachment to settlement: social and psychological determinants
639 of migrants' intentions to stay. *J. Ethn. Migr. Stud.* 46, 3191–3209.
640 <https://doi.org/10.1080/1369183X.2018.1554429>
- 641 United Nations, 2014. World Urbanization Prospects: The 2014 Revision. Population Division, Department of
642 Economic and Social Affairs, United Nations, New York.
- 643 VanWey, L.K., 2005. Land Ownership as a Determinant of International and Internal Migration in Mexico and
644 Internal Migration in Thailand. *Int. Migr. Rev.* 39, 141–172. <https://doi.org/10.1111/j.1747-7379.2005.tb00258.x>
- 645 Wang, W.W., Fan, C.C., 2012. Migrant Workers' Integration in Urban China: Experiences in Employment, Social
646 Adaptation, and Self-Identity. *Eurasian Geogr. Econ.* 53, 731–749. <https://doi.org/10.2747/1539-7216.53.6.731>
- 647 Wang, Z., Zhang, F., Wu, F., 2017. Social Trust Between Rural Migrants and Urban Locals in China - Exploring the
648 Effects of Residential Diversity and Neighbourhood Deprivation. *Popul. Space Place* 23, e2008.
649 <https://doi.org/10.1002/psp.2008>
- 650 Wang, Z., Zhang, F., Wu, F., 2016. Intergroup neighbouring in urban China: Implications for the social integration
651 of migrants. *Urban Stud.* 53, 651–668. <https://doi.org/10.1177/0042098014568068>
- 652 Waters, M.C., Jiménez, T.R., 2005. Assessing Immigrant Assimilation: New Empirical and Theoretical Challenges.
653 *Annu. Rev. Sociol.* 31, 105–125. <https://doi.org/10.1146/annurev.soc.29.010202.100026>
- 654 World Bank and DRC, 2013. China 2030: Building a Modern, Harmonious, and Creative High-Income Society. The
655 World Bank, Washington, D.C. <https://doi.org/10.1596/978-0-8213-9545-5>
- 656 Wu, X., Treiman, D.J., 2004. The Household Registration System and Social Stratification in China: 1955–1996.
657 *Demography* 41, 363–384. <https://doi.org/10.1353/dem.2004.0010>
- 658 Wu, Y., Long, H., Zhao, P., Hui, E.C.M., 2022. Land use policy in urban-rural integrated development. *Land use*
659 *policy* 115, 106041. <https://doi.org/10.1016/j.landusepol.2022.106041>
- 660 Xiao, W., Zhao, G., 2018. Agricultural land and rural-urban migration in China: A new pattern. *Land use policy* 74,
661 142–150. <https://doi.org/10.1016/j.landusepol.2017.05.013>
- 662 Xie, Y., Jiang, Q., 2016. Land arrangements for rural-urban migrant workers in China: Findings from Jiangsu
663 Province. *Land use policy* 50, 262–267. <https://doi.org/10.1016/j.landusepol.2015.10.010>
- 664 Xu, Z., Zhuo, Y., Li, G., Bennett, R.M., Liao, R., Wu, C., Wu, Y., 2022. An LADM-based model to facilitate land
665 tenure reform of rural homesteads in China. *Land use policy* 120, 106271.
666 <https://doi.org/10.1016/j.landusepol.2022.106271>
- 667 Yuan, W., 2016. Migrant Workers' Social Capital and Urban Integration under the Background of Urbanization.
668 *Open J. Soc. Sci.* 04, 185–191. <https://doi.org/10.4236/jss.2016.44027>
- 669 Yue, Z., Li, S., Jin, X., Feldman, M.W., 2013. The Role of Social Networks in the Integration of Chinese Rural–
670 Urban Migrants: A Migrant–Resident Tie Perspective. *Urban Stud.* 50, 1704–1723.
671 <https://doi.org/10.1177/0042098012470394>
- 672 Zhu, Y., 2007. China's floating population and their settlement intention in the cities: Beyond the Hukou reform.
673 *Habitat Int.* 31, 65–76. <https://doi.org/10.1016/j.habitatint.2006.04.002>
- 674 Zhu, Y., Breitung, W., Li, S., 2012. The Changing Meaning of Neighbourhood Attachment in Chinese Commodity
675 Housing Estates: Evidence from Guangzhou. *Urban Stud.* 49, 2439–2457.
676 <https://doi.org/10.1177/0042098011427188>
- 677 Zou, J., Chen, Y., Chen, J., 2020. The complex relationship between neighbourhood types and migrants' socio-
678 economic integration: the case of urban China. *J. Hous. Built Environ.* 35, 65–92.
679
680

681 <https://doi.org/10.1007/s10901-019-09670-2>
682 Zou, J., Deng, X., 2022. Spatial Differentiation and Driving Forces of Migrants' Socio-Economic Integration in
683 Urban China: Evidence from CMDS. *Soc. Indic. Res.* 159, 1035–1056. <https://doi.org/10.1007/s11205-021->
684 02785-6
685

Appendix

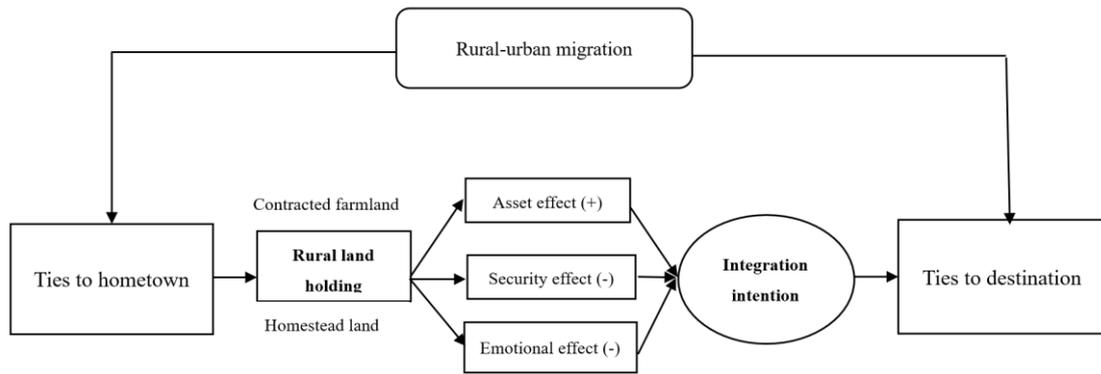


Figure 1 The conceptual framework of this paper

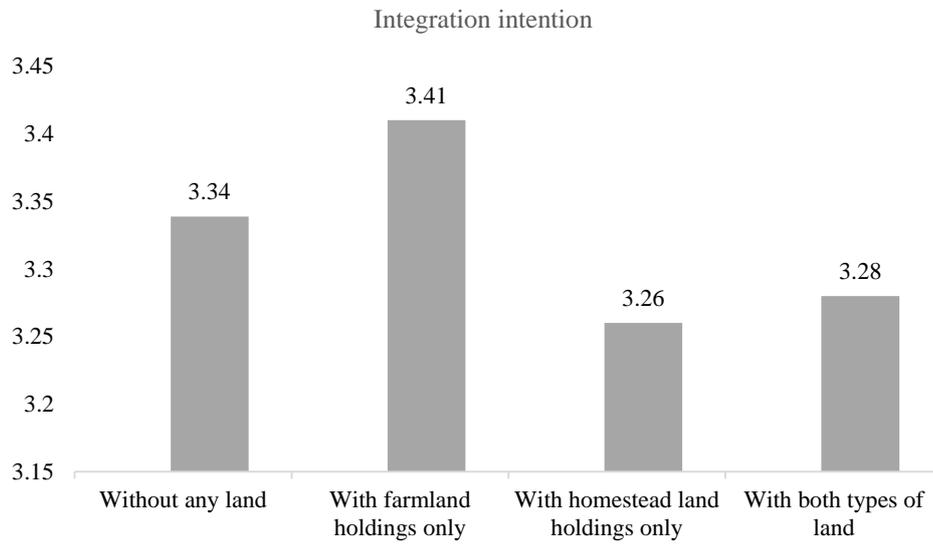


Figure 2 Integration intention of rural migrants across different status of landholding

Table 1 Descriptive statistics of the variables

Variables		Percentage (%)
Gender	Male	51.99
	Female	48.01
Age	Less than 25	14.41
	25-35	37.53
	35-45	26.77
	More than 45	21.29
Education	Junior high school and below	68.33
	High school	20.57
	College and above	11.09
Occupation	Irregular employment	2.72
	Service personnel	34.13
	Manufacturing worker	25.97
	Manager & technician	8.35
	Businessman	28.84
Medical insurance	They don't have local medical insurance	78.35
	They have local medical insurance	21.65
Social insurance	They don't have local social insurance	54.47
	They have local social insurance	45.53
Generation	Old generation	51.39
	New generation	48.61
Parter_present	Not live in destinations	25.08
	Live in destinations	74.92
Child_present	Not live in destinations	46.78
	Live in destinations	53.22
Length of stay	≤1 year	17.97
	1 year-10 years	60.92
	>10 years	21.11
Longmove	Intra-provincial mobility	51.06
	Inter-provincial mobility	48.94
Homeownership	Tenant	77.72
	Homeowner	22.28
Hometown landholdings	Without any land	23.21
	With farmland holdings only	8.19
	With homestead land holdings only	22.86
	With both types of land	45.75
City level	First-tier city	12.30
	Second-tier city	34.26
	Third-tier city and below	53.44
Total		100%

Table 2 Variable means by landholdings

Variables	Entire	Without any land	With farmland holdings only	With homestead land holdings only	With both types of land
Female	0.480	0.577	0.483	0.509	0.416
Age	36.075	34.256	39.122	34.135	37.423
Junior school and below	0.683	0.639	0.728	0.657	0.711
High school	0.206	0.221	0.169	0.224	0.196
College and above	0.111	0.141	0.104	0.119	0.093
Irregular employment	0.027	0.036	0.047	0.022	0.023
Life service personnel	0.341	0.386	0.338	0.342	0.322
Manufacturing worker	0.260	0.218	0.270	0.250	0.281
Manager & technician	0.083	0.094	0.082	0.088	0.077
Businessman	0.288	0.266	0.263	0.298	0.297
Month income	4160.27	4031.07	3913.68	4355.44	4160.18
Medical insurance	0.216	0.250	0.253	0.216	0.193
Social insurance	0.498	0.497	0.489	0.499	0.499
Parter_present	0.749	0.692	0.798	0.747	0.770
Child_present	0.532	0.506	0.583	0.527	0.539
Child_number	1.553	1.404	1.551	1.534	1.631
≤1 year	0.180	0.168	0.106	0.202	0.188
1 year-10 years	0.609	0.625	0.573	0.617	0.604
>10 years	0.211	0.208	0.321	0.181	0.208
Longmove	0.511	0.474	0.426	0.573	0.513
Homeowner	0.223	0.249	0.343	0.170	0.214
First-tier city	0.123	0.126	0.093	0.149	0.114
Second-tier city	0.343	0.289	0.297	0.375	0.362
Third-tier city and below	0.534	0.585	0.610	0.476	0.524

Table 3 Benchmark results

Variables	(1) OLM	(2) OLM	(3) OLM
<u>Hometown land variables:</u>			
Without any land (ref.)			
With farmland holdings only	0.1883*** (0.0281)	0.1318*** (0.0283)	0.0769*** (0.0290)
With homestead land holdings only	-0.2334*** (0.0205)	-0.1781*** (0.0206)	-0.0977*** (0.0212)
With both types of land	-0.1526*** (0.0180)	-0.1221*** (0.0181)	-0.0668*** (0.0189)
<u>Control variables:</u>			
Female	-0.0218 (0.0142)	-0.0187 (0.0143)	0.0053 (0.0144)
Age			
Less than 25 (ref.)			
25-35	0.1686*** (0.0330)	0.0944*** (0.0332)	0.0745** (0.0335)
35-45	0.2990*** (0.0340)	0.1568*** (0.0345)	0.1316*** (0.0348)
More than 45	0.4094*** (0.0355)	0.2440*** (0.0361)	0.1898*** (0.0365)
Education			
Junior high school and below (ref.)			
High school	0.1936*** (0.0177)	0.1672*** (0.0178)	0.1765*** (0.0180)
College and above	0.4044*** (0.0266)	0.3398*** (0.0269)	0.3542*** (0.0272)
Occupation			
Irregular employment (ref.)			
Life service personnel	0.0187 (0.0412)	0.0204 (0.0414)	0.0860** (0.0419)
Manufacturing worker	-0.3614*** (0.0418)	-0.3125*** (0.0420)	-0.1793*** (0.0426)
Manager & technician	-0.0745 (0.0481)	-0.0688 (0.0483)	0.0189 (0.0489)
Businessman	-0.0022 (0.0413)	-0.0266 (0.0415)	0.0653 (0.0421)
Month_income	-0.0469*** (0.0114)	-0.0357*** (0.0116)	0.0001 (0.0119)
Medical_insurance	0.3961*** (0.0182)	0.3392*** (0.0185)	0.2736*** (0.0190)
Social_insurance	0.0239 (0.0146)	0.0097 (0.0146)	0.0335** (0.0155)
Parter_present	-0.0491** (0.0193)	-0.0303 (0.0195)	-0.0226 (0.0198)
Child_present	0.3428*** (0.0149)	0.2534*** (0.0152)	0.2169*** (0.0155)
Child_number	-0.0505*** (0.0096)	-0.0422*** (0.0096)	-0.0079 (0.0099)
Length of stay			
≤1 year (ref.)			

1 year-10 years		0.1936*** (0.0197)	0.1526*** (0.0200)
>10 years		0.4573*** (0.0235)	0.4133*** (0.0239)
Longmove		-0.2262*** (0.0138)	-0.2497*** (0.0164)
Homeowner		0.3188*** (0.0164)	0.2472*** (0.0171)
<u>City characteristics</u>			
Third-tier city and below (ref.)			
First-tier city			0.0439 (0.0577)
Second-tier city			-0.0818*** (0.0177)
Provincial dummies	No	No	Yes
Constant cut1	-4.6578*** (0.1107)	-4.5492*** (0.1118)	-4.3535*** (0.1210)
Constant cut2	-2.6157*** (0.1067)	-2.5028*** (0.1078)	-2.3010*** (0.1173)
Constant cut3	0.3813*** (0.1061)	0.5225*** (0.1073)	0.7832*** (0.1169)
Pseudo R2	0.0175	0.0247	0.0383
Observations	88387	88387	88387

Note: ***, ** and * represent significance at 1%, 5% and 10% level, respectively; standard errors in parentheses. Same in the rest tables.

Table 4 The marginal effect of hometown land

Variables	(1) Integration intention	(2) Integration intention	(3) Integration intention
<u>Hometown land variables:</u>			
Without any land (ref.)			
With farmland holdings only	0.0434*** (0.0065)	0.0300*** (0.0064)	0.0171*** (0.0065)
With homestead land holdings only	-0.0538*** (0.0047)	-0.0405*** (0.0047)	-0.0218*** (0.0047)
With both types of land	-0.0352*** (0.0041)	-0.0278*** (0.0041)	-0.0149*** (0.0042)
Personal characteristics	Yes	Yes	Yes
Household characteristics	Yes	Yes	Yes
Migration characteristics	No	Yes	Yes
Housing characteristics	No	Yes	Yes
City characteristics	No	No	Yes
Provincial dummies	No	No	Yes

Note: Integration intention refers to the degree of strong integration intention (“agree completely” to be integrated). Same in the results tables below.

Table 5 Testing the effect of hometown landholdings

Variables	(1) Integration intention	(2) Integration intention	(3) Integration intention	(4) Integration intention	(5) Integration intention	(6) Integration intention
<u>Hometown land variables:</u>						
Lnfield_value	0.0071*** (0.0027)					
Without any land (ref.)						
With farmland holdings only		0.0144** (0.0068)	0.0302*** (0.0079)	0.0318*** (0.0067)	0.0164* (0.0086)	0.0365*** (0.0069)
With homestead land holdings only		-0.0245*** (0.0051)	-0.0285*** (0.0063)	-0.0368*** (0.0048)	-0.0263*** (0.0065)	-0.0325*** (0.0052)
With both types of land		-0.0169*** (0.0045)	-0.0241*** (0.0052)	-0.0262*** (0.0042)	-0.0124** (0.0057)	-0.0203*** (0.0043)
<u>Location variables:</u>						
Hometown_nearby urban		-0.0058 (0.0098)				
With farmland holdings only* Hometown_nearby urban		0.0297 (0.0223)				
With homestead land holdings only * Hometown_nearby urban		0.0218 (0.0137)				
With both types of land * Hometown_nearby urban		0.0219* (0.0128)				
<u>Region and homeowner variables:</u>						
Eastern China			-0.0533***	-0.0610***		-0.0497***

			(0.0075)	(0.0041)		(0.0045)
With farmland holdings only* eastern China			0.0053			
			(0.0134)			
With homestead land holdings only* eastern China			-0.0123			
			(0.0095)			
With both types of land* eastern China			-0.0001			
			(0.0083)			
Homeowner			0.0697***	0.0621***		
			(0.0037)	(0.0042)		
With farmland holdings only* eastern China* Homeowner				0.0068		
				(0.0186)		
With homestead land holdings only* eastern China* Homeowner				0.0319**		
				(0.0132)		
With both types of land* eastern China* Homeowner				0.0357***		
				(0.0102)		
<u>Social insurance variables:</u>						
Social_insurance					0.0080	0.0095**
					(0.0070)	(0.0039)
With farmland holdings only* Social_insurance					0.0017	
					(0.0128)	
With homestead land holdings only* Social_insurance					0.0093	
					(0.0092)	
With both types of land* Social_insurance					-0.0054	
					(0.0080)	
With farmland holdings only* Social_insurance* eastern						-0.0235

China						(0.0151)
With homestead land holdings only * Social_insurance* eastern China						-0.0104
With both types of land * Social_insurance* eastern China						(0.0082) -0.0179***
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Pseudo R2	0.0423	0.0383	0.0270	0.0271	0.0383	0.0270
Observations	17913	88387	88387	88387	88387	88387

Table 6 Testing the generation-differentials of hometown landholding effects

Variables	(1) Integration intention	(2) Integration intention	(3) Integration intention	(4) Integration intention
<u>Hometown land variables:</u>				
Without any land (ref.)				
With farmland holdings only	0.0308*** (0.0081)	0.0373*** (0.0068)	0.0256*** (0.0075)	0.0211*** (0.0067)
With homestead land holdings only	-0.0194*** (0.0064)	-0.0321*** (0.0051)	-0.0207*** (0.0058)	-0.0218*** (0.0049)
With both types of land	-0.0102* (0.0055)	-0.0220*** (0.0043)	-0.0110** (0.0049)	-0.0129*** (0.0043)
<u>Hometown connection variables:</u>				
New_generation	-0.0140** (0.0069)	-0.0226*** (0.0041)	-0.0196*** (0.0055)	-0.0199*** (0.0039)
With farmland holdings only* New-generation	-0.0385*** (0.0133)			
With homestead land holdings only * New-generation	-0.0048 (0.0092)			
With both types of land * New-generation	-0.0098 (0.0081)			
Eastern China		-0.0528*** (0.0043)		
With farmland holdings only* eastern China * New_generation		-0.0366** (0.0171)		
With homestead land holdings only * eastern China * New_generation		-0.0126 (0.0083)		
With both types of land * eastern China * New_generation		-0.0085 (0.0074)		
Return_more			-0.0411*** (0.0044)	
With farmland holdings only* Return_more* New_generation			-0.0307** (0.0133)	
With homestead land holdings only * Return_more* New_generation			0.0025 (0.0082)	
With both types of land * Return_more* New_generation			-0.0022 (0.0070)	
Interaction_villager				-0.0050 (0.0039)
With farmland holdings only* Interaction_villager* New_generation				-0.0471** (0.0209)
With homestead land holdings only * Interaction_villager* New_generation				0.0008 (0.0094)
With both types of land * Interaction_villager* New_generation				-0.0107 (0.0079)
Control variables	Yes	Yes	Yes	Yes
Pseudo R2	0.0383	0.0269	0.0389	0.0383
Observations	88387	88387	88387	88386

