

Social networks and drivers of highly skilled migration: The case of Shenzhen City in China

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Abstract

In China, the number of highly skilled domestic migrants has been growing significantly. Many highly skilled personnel have migrated to megacities located in eastern China. Through semistructured interviews with 54 highly skilled migrants in the city of Shenzhen, we find that economic incentives, urban amenities, preferential policies and social networks act as drivers for their migration. Because the role of social networks has been overlooked in the existing literature, we focus on this particular driver of migration. The desire to be physically embedded in social networks has driven migrants to move to Shenzhen: they cite proximity to parents, partners and former schoolmates as motivating factors. Such embeddedness provides them with a sense of 'social affiliation'. While previous research has highlighted the role of migrants' social capital, we suggest that highly skilled migrants do not necessarily rely on this resource. Instead, we focus on what we call 'migration for social affiliation', and offer a novel angle on the precise role of migrants' social networks.

KEYWORDS

China, highly skilled migrants, migration drivers, social capital, social networks, social relationship

1 | INTRODUCTION

Highly skilled migrants are defined by either their level of education (Borjas, 2005) or occupation (Espenshade et al., 2001). The former is more widely used in migration studies: a highly skilled migrant refers to a person with tertiary (university-level) education (Lowell, 2005, p. 2). We employ this definition for our study. In China, the number of highly skilled domestic migrants has been growing significantly, thanks to an increase in the tertiary education enrolment ratio, which rose from 3% in 1990 to 54% in 2019 (World Bank, 2020). Due to an imbalance in regional development, many highly skilled personnel migrate from the country's less developed western and central

regions to more developed eastern coastal areas where major cities (e.g., Beijing, Shanghai, Shenzhen) are located (Dai et al., 2012; Gong & MacLachlan, 2021). Previous studies have asserted that such migration flows are primarily driven by differential wage levels across regions (e.g., Liu et al., 2017; Qian, 2010). Moving beyond strictly economic explanations, some scholars, utilising in-depth qualitative research, have recently highlighted the importance of migrants' roles as social actors (Bailey & Mulder, 2017, p. 2691), including their life course choices and their linked lives (Kirk et al., 2017; Kōu et al., 2017; Ryan et al., 2015).

Existing research on highly skilled domestic migrants in China has primarily quantified their migration patterns (Gu & Shen, 2021; Ma &

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Pan, 2014; Zhao & Hu, 2019; Zhou et al., 2018). These quantitative studies are usually based on survey data of large samples and conduct regression analysis to examine the correlations between talent migration and various types of factors. Nevertheless, qualitative research usually carries out the methods of interviews or observations, analyzes small samples to explore new phenomena and their internal causality, and leads to open-ended conclusions. In addition, qualitative research based on humanistic approaches recognises the detailed social and affective characters of human subjects and their communities, as well as imagination for relevant policy renovation, which quantitative research overlooks or precludes (MacLachlan & Gong, 2022b). As Castles (2012, pp. 8–10) has argued, there is a need for qualitative methods in migration studies, especially in the Global South; researchers should not only carry out macrolevel analysis based on quantitative datasets but also engage in microlevel studies that help to understand specific migratory life experiences. In this study, we have heeded this call, mainly utilising qualitative, semistructured interviews consisting of highly skilled Chinese migrants' life experiences to answer several pressing research questions. What are the drivers of highly skilled migration in China? Are these drivers in line with the findings of previous studies? Are there any new migration drivers revealed through qualitative data? If so, how do such findings contribute to existing theoretical debates in migration studies?

Shenzhen has been selected as the research site. Located in Guangdong Province and adjacent to Hong Kong, Shenzhen is known as a receiving city for migrants. According to the Statistics Bureau of Shenzhen (2019), there are 8.49 million migrants in the city, accounting for 63% of the total population of 13.44 million. Shenzhen has the distinction of being China's first Special Economic Zone; the city has focused on innovative research and development in the field of high technology for decades (Whitwell, 2014). Many corporate headquarters are located (e.g., Huawei, Tencent, Ping An Insurance) in this city, known as China's 'Silicon Valley' (Whitwell, 2014). A significant proportion of migrants in Shenzhen are highly skilled personnel. For example, as of 2021, around 160,000 Chinese graduates have migrated to Shenzhen after receiving degrees from overseas universities (Shenzhen Special Zone Daily, 2021).

Based on 54 interviews with highly skilled migrants in Shenzhen, we find first, in line with the existing literature, that economic incentives, urban amenities and preferential policies (e.g., relaxed *hukou* regulations) act as drivers of highly skilled migration to the city. Second, many interviewees stress their social networks (i.e., kinship, partnership, alumni) as an indispensable driver of migration. The desire to be physically embedded in their social networks has pushed their migration to Shenzhen; in other words, they seek a sense of 'social affiliation'. Because the role of social networks has been overlooked in the existing literature, we focus on this particular driver of migration. While previous research has highlighted the role of migrants' social capital, we suggest that highly skilled migrants do not necessarily rely on this resource. For instance, interviewees assert their human capital is actually the key determinant of their job-

seeking activities. Existing literature often conflates migrants' social networks with social capital (Haug, 2008); we argue that these two concepts are not equivalent and propose a novel angle for understanding migrants' social networks. We thus contribute to the field of migration studies both empirically and theoretically.

2 | LITERATURE REVIEW

Compared to other types of migrants (e.g., low-skilled, family reunification or refugee movements), highly skilled migrants are generally more welcome in host societies, as they tend to be less dependent on welfare and possess high levels of human capital that generate economic value in the receiving context (Boucher & Cerna, 2014). For example, based on data from 111 countries, in 2019, 40% of countries had policies in place to attract highly skilled migrants, while only 5% had policies to lower such migration; 19% advocated maintaining current levels and 37% had no policies (United Nations, 2019, p. 15).

Studies on highly skilled migrants primarily concentrate on those individuals crossing nation-state borders, namely, international migrants (Weinar & Klekowski von Koppenfels, 2020). Within this group, North–North migration and South–North migration are the most prominent patterns. As for the former, intra-European Union (EU) mobility has been extensively examined, as 40% of cross-border migrants moving within the EU have obtained tertiary education (Favell, 2008; Weinar, 2018). As for the latter, highly skilled international migrants from China and India, who are more likely to migrate to countries such as the United States, the United Kingdom, Canada, Australia and New Zealand, draw the most attention in academic research (Gao et al., 2013; Kumar, 2013). The phenomenon of brain drain at origins and brain gain at destinations is commonly found in the South–North migration of highly skilled personnel (Frédéric et al., 2007); in other words, developing countries are major places of origin for migrants, while developed countries represent major destinations (Gibson & McKenzie, 2011).

Some studies have examined the migration of highly skilled personnel within nation-state borders, in countries such as the United States (Partridge et al., 2012), the United Kingdom (Faggian et al., 2007), Germany (Teichert et al., 2020), Russia (Aldieri et al., 2020), Australia (Corcoran et al., 2010) and China (Zhou et al., 2018). Most existing research on highly skilled international or domestic migrants focuses on returns to skills (Borjas et al., 1992; Zhao & Hu, 2019), economic impact (Nathan, 2013) and migration policies (Boucher, 2019); indeed, this type of migrant is largely perceived as an economic actor. Recently, some scholars have begun to stress the importance of recognising highly skilled migrants as social actors (Bailey & Mulder, 2017, p. 2691), which often requires in-depth empirical research (Kirk et al., 2017; Kōu et al., 2017).

In response to rapid economic growth and upgrading to a knowledge economy, highly skilled workers are becoming increasingly valuable and important in China (Gong & MacLachlan, 2021; Zweig et al., 2020). The recognition of their value is demonstrated by

the many talent programmes launched by central and local governments. Highly skilled migrants are mainly university graduates concentrated in the coastal regions of China, especially in Beijing, Shanghai and Guangdong Province (Liu et al., 2017; Zhou et al., 2018). Such migration patterns result in the uneven spatial distribution of talented workers who play a vital role in regional socioeconomic development. There is insufficient talent supply in inland regions while top-level skilled workers are oversupplied in some areas (e.g., Shanghai) (Zhou et al., 2018). It is worth noting that China has been experiencing a brain drain for decades (Zhou et al., 2018); however, several recent studies indicate that the number of highly skilled overseas returnees has been increasing in recent years (Li & Zhang, 2020; Zweig et al., 2020).

China's talent migration is mainly affected by economic factors, urban amenities and state institutions (Liu & Shen, 2013; Qian, 2010; Zhao & Hu, 2019; Zhou et al., 2018). Economic factors (e.g., wages) have the most significant impacts on skilled migration (Liu et al., 2017; Qian, 2010). For example, regional differences in wage levels are the primary driver of skilled migration (Liu & Shen, 2013). Urban amenities such as quality services, an inclusive social environment and a mild climate attract highly skilled workers (Liu & Shen, 2013; Qian, 2010). Chinese local governments have recently developed a large amount of public housing to attract and retain these workers (Gong & MacLachlan, 2021). In this regard, the household registration system (i.e., *hukou*) is a well-known barrier to internal migration in China (Chan & Zhang, 1999; Zhang, 2012). The impact of *hukou* on highly skilled migration has been insignificant because many skilled migrants can obtain local *hukou* (Li & Zhang, 2020; Liu & Shen, 2013) and many host cities have begun to ease the *hukou* control of highly skilled migrants to attract and retain them (Zhang, 2012). Furthermore, some studies point out that university graduates are likely to find jobs in their hometowns or the cities in which they received their higher education (Dai et al., 2012; Ma & Pan, 2014), which implies that highly skilled migrants' social connections with their origins and universities can affect their migration decision making during job hunting. MacLachlan and Gong (2022a) recently pointed out that talented migrants and their parents and children constitute a new group of floating population in China, different from rural migrants as the traditional floating population, and they further asserted the importance of social ties to such talented migrants and their families. Nevertheless, in comparison with the focus on economic factors, amenities and institutions, the social aspect of highly skilled migration in China still lacks scholarly attention.

Against this backdrop, our study examines the social aspects of highly skilled migration in China using qualitative methods. Previous studies have commonly used large datasets for quantitative analysis. For example, using data from the 2005 national population sample survey, Liu et al. (2017) examine university graduates' migration patterns and model their choices of destination. Gu and Shen (2021) use a hurdle gravity model and find that in comparison with low-skilled migrants, highly skilled migrants are more attracted by wages, natural comforts and medical services of a region. Zhou et al. (2018) map 8151 talented internal migration flows across 34 provincial

administrative units and highlight their influence on regional development. Ma and Pan (2014) collect 21,220 survey questionnaires to investigate the relationship between graduates' chosen place of work, their birthplace, and where they attend college. From this extensive body of work, it is clear that quantitative analysis prevails in the study of highly skilled domestic migrants in China. To better understand this group of migrants, particularly their social traits affecting migration, we have conducted 54 qualitative, semistructured interviews with highly skilled Chinese migrants in Shenzhen, one of the most popular destination cities.

3 | CONCEPTUAL FRAMEWORK: DRIVERS OF MIGRATION AND SOCIAL NETWORKS

Why do people migrate and where do they go? Such questions persist as ongoing academic debates, long discussed in classic migration literature (Lee, 1966; Ravenstein, 1885). Before the 2000s, 'determinants' and 'causes' of migration had been commonly employed to explore these questions. But after the 2000s, 'drivers' of migration have rapidly gained prominence (Carling & Collins, 2018, p. 919). Drivers of migration are regarded as an inclusive term that encompasses the mechanisms that eventually produce migration outcomes (Carling & Talleraas, 2016, p. 6). Van Hear et al. (2018) assert migration is the outcome of the interplay between social structure and agency. Through exploring structural forces and external intervention, they identify four types of drivers: predisposing, proximate, precipitating and mediating drivers. A comprehensive analytical framework has also been proposed, including five dimensions of drivers (i.e., economic, political, demographic, social and environmental), which interact with each other to shape migration decisions (Black et al., 2011). Economic drivers, deemed the most powerful drivers of migration, have garnered much academic attention. Other drivers, such as the environment, culture and urban amenities have also been addressed; for example, highly skilled migrants tend to move to places with a pleasant natural environment and sufficient cultural and entertainment facilities (Scott, 2009). As a creative class, this group of migrants is attracted by urban amenities such as diversity and tolerance (Florida, 2002; Qian, 2010).

This body of scholarship has set an important agenda for further research on migration drivers. Existing studies rarely consider the social network as a driver, but based on qualitative data collected among highly skilled migrants including Chinese overseas returnees in Shenzhen, we find social networks act as a vital driver of their movement. This research thus aims to fill an important research gap by exploring an underexamined migration driver: social networks. Certainly, we do not intend to claim social networks are the sole drivers of migration; other drivers (e.g., economic and institutional factors) also influence migration decisions. But the group of highly skilled migrants we interviewed in Shenzhen emphasise greatly the role of social networks, which forms the basis for our investigation.

'Migrant networks' are the sets of interpersonal ties that connect migrants, former migrants and nonmigrants in origin and destination

areas through ties of kinship, friendship and shared community origin (Massey et al., 1993, p. 448). Existing migration studies have largely highlighted the role of these social networks in terms of location-specific social capital (e.g., Amit & Riss, 2007; Haug, 2008; Hugo, 1982). Massey et al. (1998) suggest that migrant networks constitute a form of social capital that people can draw upon to gain access to resources. Therefore, migrant networks play an important role in facilitating migration (Boyd, 1989; Faist, 1997; Herz, 2015; Lu et al., 2013). For example, potential migrants' social networks at the destinations can assist them with job searching, material support, settlement arrangements and information dissemination, which in turn reduce the cost and risks of migration (Herz, 2015; Tilly & Brown, 1967).

We assert that these studies conflate social networks with social capital, ignoring the nuanced distinctions between the two terms (de Haas, 2010). Bourdieu (1985, p. 248) defines social capital as 'the aggregate of the actual or potential resources which are linked to the possession of a durable network of more or less institutionalised relationships of mutual acquaintance and recognition—or in other words, to membership in a group'. He delineates two dimensions of social capital; one is the social relationship itself and the other consists of 'resources' that can be accessed through such networks (de Haas, 2010, p. 1603). Accordingly, social networks, denoting the first dimension, are not the equivalent of social capital. Social networks can only be perceived as social capital if people have access to and mobilise resources provided by network members.

On the one hand, the highly skilled migrants in our study note the vital influence of social networks in driving their migration to Shenzhen. On the other hand, due to their high levels of human capital, they rarely rely on resources or assistance from migrant networks. Existing research fails to explain such a puzzle. Why do these highly skilled migrants highlight the influence of social networks even if they do not access resources through these networks? Decoupling the concept of social networks from social capital, we argue that social networks are a driver for their migration to Shenzhen. For one, the intangible aspects of social networks at the destination (e.g., partnership, kinship, friendship and alumni networks) drive their migration. Further, the desire to be close to these network members is what drives their migration. After moving to their destination, these highly skilled migrants become physically embedded in their social networks, which is their goal of 'social affiliation' through migration. We call this migration pattern 'migration for social affiliation'.

4 | RESEARCH METHODS

Between October 2019 and March 2021, fieldwork was carried out in the Chinese city of Shenzhen. Semistructured interviews were conducted with 54 highly skilled Chinese migrants. Interviewees were approached through various alumni associations, community organisations and WeChat, the most frequently used social media application in China. Specifically, 24 highly skilled migrants were

recruited as interviewees with the help of two regional community associations and two alumni associations. A snowball strategy was used for interviews. We first asked these interviewed skilled migrants to introduce their acquaintances to us. Through snowball sampling, another 12 interviewees were selected. To avoid finding samples with similar social traits through snowball strategy and to diversify our samples further, 18 interviewees were recruited through WeChat.

By using various channels for recruitment, we obtained a diverse sample of highly skilled migrants. As shown in Table 1, 48.1% of interviewees were male and 51.9% were female. As regards age, 70.4% were under 30, 24.1% were between 30 and 40 and 5.6% were above 40. The majority of interviewees are young skilled workers. As regards marriage, 75.9% of interviewees were unmarried, while 24.1% were married. As for educational background, 42.6% had bachelor's degrees, 53.7% had received master's degrees and 3.7% had obtained PhD degrees. Among these highly skilled migrants, 77.8% received their degrees from Chinese universities, while 22.2% had degrees from overseas universities. Regarding migration patterns, 37% were intraprovincial migrants with their household registration (*hukou*) located in other parts of Guangdong province, while 63% were interprovincial migrants. Migrants with overseas university degrees had Chinese nationality and were counted as intra- or interprovincial migrants according to their *hukou* origins.

TABLE 1 Demographics of interviewees ($N = 54$).

Characteristics category	Number	Percentage
Gender		
Male	26	48.1
Female	28	51.9
Age		
Under 30	38	70.4
30–40	13	24.1
Above 40	3	5.6
Marital status		
Unmarried	41	75.9
Married	13	24.1
Education		
Bachelor	23	42.6
Master	29	53.7
Doctor	2	3.7
University location		
Domestic	42	77.8
Overseas	12	22.2
Migration		
Intraprovincial	20	37.0
Interprovincial	34	63.0

These migrants were included in the data to show the impacts of social forces on skilled workers with the experience of historical international migration.

Each interview lasted between 40 min to 1½ h, and audio recording was permitted by the interviewees. Interview questions were categorised into three main parts. This first part included demographic characteristics such as gender, age and educational background. The second part concerned the drivers of their migration to Shenzhen. The third part focused on their social networks and the role of these networks in their migration. During the data analysis, we first transcribed the recordings, and then, NVivo 11 software was used for the coding process. In addition, descriptive statistical analysis was conducted to assist qualitative methods in demonstrating migration patterns. When presenting the data in the following section, all details about organisations and associations, as well as the personal information of interviewees, has been anonymized.

5 | FINDINGS

Based on the qualitative data we collected, we found that, first, the migration of highly skilled individuals to Shenzhen was driven by multiple factors, including economic incentives, urban amenities, preferential policies and social networks. Second, social networks as a driver of migration, overlooked in previous research on the topic, were explicitly emphasised by our interviewees. They stated that the desire to be close to their social network members (e.g., parents, partners and alumni) had driven their migration to Shenzhen.

5.1 | Drivers of highly skilled migration to Shenzhen

Existing studies have pointed to the different dimensions of migration drivers (i.e., economic, political, demographic, social and environmental) (Black et al., 2011). In line with these findings, our empirical data indicated that economic incentives, urban amenities and preferential policies were considered important drivers of highly skilled migration to Shenzhen.

First, economic incentives were an important aspect of migration decisions. Beijing, Shanghai and Shenzhen are the three Chinese cities with the highest salaries (Cnwang, 2021). Four interviewees explicitly pointed out that salary was one of the primary determinants of their migration decision-making. As Zhong (female, 25 years old), a U.C. Berkeley graduate, noted, 'The salary will determine our living standard in the city..., a lower salary will lead to a much worse life. After graduation, I came to Shenzhen, where I was offered a higher salary'. Moreover, since most of our interviewees are young professionals under 30 years old, most (44 interviewees) highlighted that the prospects for career development and higher income were also taken into consideration when choosing Shenzhen, China's 'Silicon Valley', as a destination. For example, one interviewee explained, 'The salaries of the two job offers in Shenzhen and

Shanghai are the same. The job in Shenzhen gives me more prospects because depending on my work performance, I could be rewarded with project-based commissions and bonuses. But the income in Shanghai will be fixed; thus, I chose Shenzhen' (Hu, female, 26 years old). Existing literature often examines the impact of workers' current salary on their migration decisions (e.g., Florida, 2002; Qian, 2010; Scott, 2009), while our data suggest that potential economic benefits are perceived as more important.

Second, urban amenities involving nature, and public facilities and services (e.g., public transportation and security) played a role in attracting 18 or more highly skilled workers to Shenzhen, as shown in Table 2. Shenzhen's mild climate and good air quality were praised by many of the migrants in our sample. Further, they acknowledged that the transportation in Shenzhen was more convenient than that in other Chinese megacities. Additionally, various social amenities affected the decision to migrate among 21 interviewees. The keywords that appeared most frequently in the interviews included 'tolerance', 'justice', 'innovation', 'urban vigour' and 'spirit for competition and hard work'. These terms reflect the essential characteristics of Shenzhen's urban society. It is worth noting that tolerance is regarded as the core urban amenity attracting migration to Shenzhen, especially for overseas returnees. An interviewee with an overseas master's degree mentioned: 'In fact, I went to Guangzhou many times. I feel Shenzhen has more tolerance than Guangzhou. People from everywhere come here [Shenzhen]' (Ni, female, 24 years old).

Third, Shenzhen has implemented a series of preferential policies facilitating the settlement of highly skilled personnel, in the areas of housing and access to social welfare. The most discussed policy is the household registration (*hukou*) system. *Hukou* is a unique state institution in China tied to basic social welfare such as education,

TABLE 2 Migration drivers and their influence on the numbers of highly skilled migrants.

Driver	Numbers of interviewees
Economic incentives	
1. Salary in job offer	4
2. Career development (income in perspective)	44
Preferential policies	
1. Hukou	25
Amenities	
1. Climate	18
2. Facilities and services	24
3. Social amenities	21
Social networks	
1. Kinship	22
2. Partnership	15
3. Alumni relationship	9

public housing and healthcare (Chan, 2010). The *hukou* is often located in the place of birth, which means migrants, who are not born in the destination cities, do not hold the local urban *hukou*. Thus, they are often excluded from the urban social welfare system. It is not surprising that many migrants are eager to obtain *hukou* at their destinations, as local *hukou* can bring various benefits to them and their families. In 25 interviews, Shenzhen's *hukou* policy was mentioned as one of the factors driving their migration to the city. They noted that, compared to other major Chinese cities, the requirements for obtaining Shenzhen *hukou* are relatively lenient, and the procedures are rather simple. One interviewee said, 'Of course, I will apply for Shenzhen *hukou*. The application process is easy and fast. If you want to obtain Beijing or Shanghai *hukou*, you may apply for it through competitive point-tests or work for state-owned enterprises, depending if these enterprises have *hukou* quota' (Wu, male, 27 years old). Zhang et al. (2019) indicate that among four major Chinese cities (i.e., Beijing, Shanghai, Guangzhou, Shenzhen), Shenzhen's *hukou* is the easiest to obtain for migrants while Beijing is the most difficult city; the threshold for *hukou* qualification in Shenzhen is 0.279, compared to 0.487 in Guangzhou, 0.683 in Shanghai and 0.898 in Beijing.

5.2 | Social networks as an intangible driver for highly skilled migrants

In addition to the aforementioned drivers, social networks were highlighted by the interviewees. Of the 54 migrants interviewed, 35 stated that their migration to Shenzhen was for the sake of physical embeddedness in their social networks. Thus, we found that social networks, as an intangible driver, induced highly skilled migration to Shenzhen. Based on empirical data, three types of social networks were identified, including kinship, partnership and alumni networks.

Kinship-induced migration

Among 54 interviewees, 22 claimed that their migration decision was largely influenced by the location of their parents' residence. During interviews, they pointed out that 'close to home' (*li jia jin*) was an important motivation for their migration to Shenzhen. As most interviewees are in their 20s and 30s and are unmarried, they often refer to their parents' residence as 'home'. It is worth noting that being 'close to home' does not mean interviewees live with their parents or even in the same city; instead of Shenzhen, their parents live in other parts of Guangdong province. Parents' residences are often the locations where migrants' *hukou* was originally registered. Born and raised outside of Shenzhen, with their *hukou* registered at the parental residence, this group of interviewees does not obtain Shenzhen *hukou*. Therefore, they are regarded as intraprovincial migrants. With the fast and convenient intercity transportation system in Guangdong, they can easily travel back and forth between Shenzhen and their parents' homes; for

example, it only takes approximately a half hour from Shenzhen to Guangzhou by high-speed train. Zhong (female, 25 years old) noted: 'My parents live in Guangzhou. To work in Shenzhen is close to my parents, which is important for me'. Like some other workers, Zhong mentioned that she felt homesick (*lian jia*), which reflected her psychological attachment to her parents and motivated her migration to Shenzhen.

Choosing to be 'close to home' is largely influenced by the filial piety rooted in traditional Chinese culture. One of Confucius's well-known sayings is 'While one's parents are alive, one should not move to distant places', especially relevant for those with aging parents (Du, 2017). Elderly care in China is often the responsibility of adult children, despite a push to switch from an informal family-based care system to the state's formal long-term care system (Liu & Sun, 2015). Further, all of the interviewees belong to the generation raised under the one-child policy, introduced in 1979 and abolished in 2016. As the only child, the interviewees felt the obligation to take care of their parents as they aged. They believed being 'close to home' makes elderly care provision more manageable when needed. Additionally, being 'close to home' was not only an individual decision but also represented the parents' request, often obeyed by adult Chinese children. As an interviewee who gave us her English name, Olivia (female, 27 years old), put it: 'After graduating from Oxford University, I received offers to work in the United Kingdom and Beijing. Nevertheless, as my parents live in Guangzhou and my father wanted me to come back to Guangdong, I moved to Shenzhen. This should be an appropriate response to my father's request'.

Partnership-induced migration

As noted earlier, most interviewees were unmarried but some of them were in a serious, stable and intimate relationship while they were searching for jobs. Due to the strong influence of the Chinese Confucian culture, unmarried couples highly value faithfulness and loyalty in their partnerships. Thus, the partner's place of residence was often chosen as the migration destination. Before choosing to migrate to Shenzhen, 15 interviewees were in a relationship with someone living there. All of these interviewees admitted that their migration to Shenzhen was mainly for the sake of their relationship and to live with their partners.

Among these 15 migrants in a relationship, eight were men and seven were women, thus relatively balanced in terms of gender. In other words, both female and male migrants moved to Shenzhen to join their partners. Women's subordination to men has been traditionally rooted in the patriarchal Chinese society, making gender inequality a nationwide phenomenon (Wolf, 1985). Among low-skill labour migrants in China, it is common to find that female migrants follow their male partners to the receiving cities (Fan & Li, 2019), and, often, their jobs are procured and arranged by the male partners, in accordance with the male-dominated gender norms. However, for the eight highly skilled migrant men choosing Shenzhen to be with their girlfriends, the traditional norms are no

longer practised; instead, their migration indicates that patriarchal attitudes may be giving way to greater gender egalitarianism. One male migrant noted, 'When I graduated and was looking for a job, I had already made up my mind to come to Shenzhen, mainly because of the relationship with my girlfriend, who worked in Shenzhen Stock Exchange' (Cao, male, 29 years old). It is worth noting that the seven female migrants moving to Shenzhen for their boyfriends pointed out their choices were not tied to patriarchal ideology; they felt no pressure or oppression from their male partners. Instead, their migration to Shenzhen was largely based on their willingness to maintain the relationship. Furthermore, unlike low-skilled female migrants, highly skilled women secured jobs by themselves and did not rely on their partners' resources during the job search. As Tan (male, 27 years old) explained, 'my girlfriend came to Shenzhen because I worked here. She took the national public service exam in order to become a civil servant in Shenzhen. She passed it and now works here'.

Additionally, the migration decision-making process reflected relatively equal gender-based relationships. Some interviewees mentioned that they and their partners had discussed the move to Shenzhen openly and equally, choosing job options acceptable to both sides. For example, when asked if her boyfriend influenced her decision to move to Shenzhen, a female worker (25 years old) replied, 'Yes, both of us decide to come to Shenzhen together'. In another example, Wang (male, 25 years old) and his girlfriend are from Wuhan, the capital city of Hubei Province. He elaborated on their decision-making process:

While I graduated and searched for jobs, she was working in Shenzhen. We made two plans. Plan A was for both of us move to Wuhan; however, the salaries in Wuhan are not high. Plan B was that I join her to find a job in Shenzhen; however, the housing prices in Shenzhen are very high and we may be unable to afford it. So, we came up with a final decision: over the next several years, we will both work diligently in Shenzhen and see if we can settle down. If not, we will move to Wuhan together.

Alumni-induced migration

Universities are the main factor in concentrating the creative class in China (Qian, 2010). Nine of our interviewees stated that their migration to Shenzhen was largely influenced by their alumni networks; they chose to find a job where their alumni contacts were clustered. One interviewee mentioned 'When I was still a student in Shenzhen, I already decided to stay here to find a job after graduation. This is because my university and my classmates are in Shenzhen' (male, 35 years old) and another one said 'I chose to work in the university where I graduated...A career choice is to stay where you live and study and where there are the alumni resources' (male, 33 years old). These networks provide them with

a sense of community and social affiliation, as Mi (female, 33 years old) noted: 'Some alumni graduated a long time before me but they treated me as if we were a family, and they were like my older brothers and sisters'.

University alumni associations worked as a platform for the migrants to connect with their schoolmates. The alumni associations of Chinese universities often organise social events in major Chinese cities and encourage both current students and alumni to join, which provides good opportunities for them to get to know each other. Due to their similar educational experience and shared interests, they found strong cohesiveness among the associations. As Mi further noted:

When I travelled to Shenzhen as a tourist, I participated in a hiking event in the wild organized by my alumni association. Through that event, I got to know some alumni in Shenzhen and later we became friends. I would like to participate in more hiking activities with them, which is the main reason I migrated to Shenzhen for work.

In a similar vein, Lin (female, 30 years old) explained:

Before moving to Shenzhen, I learned that the alumni association of my university had established many clubs in Shenzhen (e.g., badminton, football) and many alumni members gathered together regularly through the alumni association. I believe such association can provide me with the greatest sense of social affiliation; therefore, I chose Shenzhen after graduating.

The above excerpts highlight the fact that the alumni network can be a source for close relationships among highly skilled migrants. Being away from home, interprovincial migrants regard alumni as a social and emotional substitute for the kinship absent in the receiving province. As for intraprovincial migrants, they also recognise the importance of alumni networks, which may not necessarily substitute for kinship, but at least function as a supplement to kinship through relationships with those that have similar life experiences. Thus, it is not surprising to find some highly skilled migrants had moved to Shenzhen for the sake of being physically embedded in their alumni networks.

6 | DISCUSSION

In sum, among 54 interviewees, 35 highlighted the fact that their migration to Shenzhen was driven by at least one type of social network (kinship, partnership and/or alumni); 19 indicated that their migration decisions were not influenced by social networks. These interviewees seldom mentioned ordinary friends as a cause of their migration. It is worth noting among the 35 migrants influenced by social networks, eight interviewees mentioned a combination of types of social networks. For example, Zhou (male, 35 years old)

stated that his migration decision was influenced by both kinship and alumni: 'My parents live in Zhuhai (another city located in Guangdong) and I have strong connections with alumni members in Shenzhen, so I made the decision to migrate to Shenzhen'. Influenced by multiple types of social networks, this group of migrants experienced strong incentives for moving to Shenzhen, making the decision straightforward, as Emily (female, 37 years old), a Chinese overseas returnee, recalled: 'Because my parents and boyfriend were all in Guangdong [Province], I moved from Australia to Shenzhen right after my graduation and I did not consider any other city at all'.

Further, we found that intraprovincial migrants and interprovincial migrants were often influenced by different types of social networks. Among 22 migrants influenced by kinship networks, 19 were intraprovincial migrants who stressed their migration to Shenzhen was driven by the desire to be close to their parents in Guangdong, and three were interprovincial migrants following their parents' migration from other provinces to Guangdong. As for the 16 interprovincial migrants affected by social networks, 11 noted that partnership had driven their migration from other provinces to Shenzhen. Thus, there is a spatial pattern in the relationship between migration distance and the social networks of kinship and partnership. Kinship in Guangdong usually leads to migration to Shenzhen. A partnership may drive interprovincial migration. It is worth noting the influence of alumni on interprovincial migrants and intraprovincial migrants are similar. As for the 19 interviewees who were not driven by any type of social network, a majority were interprovincial migrants, likely influenced by other migration drivers such as economic incentives, urban amenities and preferential policies.

Although our research sheds light on social networks as a migration driver, we do not intend to claim social networks are the only driver for our interviewees. Instead, we argue that the migration of highly skilled personnel to Shenzhen is driven by multiple factors, including economic incentives, urban amenities, preferential policies and, of course, social networks. During the migration decision-making process, interviewees are likely to consider all these factors. As Tang (male, 30 years old) explained: 'After graduating from Beijing, I migrated to Shenzhen for several reasons. One is my parents live in Guangdong and I wanted to be close to them. One is that the air quality in Shenzhen is much better than that in Beijing. Another is that the wages in Shenzhen are good'. Even if driven by multiple factors, it is common to find that based on personal circumstances, some migrants weighed a particular factor higher than others. For example, Emily (female, 37 years old) recalled 'The crucial reason I chose Shenzhen is that my boyfriend is based in Shenzhen. Of course, Shenzhen is a nice city to live in as it is open and tolerant'. In comparison with other factors, social networks may be decisive in highly skilled workers' migration.

7 | CONCLUSION

This article has examined the drivers of the migration of highly skilled personnel to the well-known receiving city of Shenzhen in China. Based on 54 semistructured interviews with highly skilled migrants in

Shenzhen, we found economic incentives, urban amenities, preferential policies and social networks acted as drivers of their migration. The first three of these drivers have been addressed in existing literature (Liu et al., 2017; Qian, 2010), but social networks as a migration driver have been overlooked. Against this backdrop, we focused on elaborating on the dimensions and types of social networks, in particular, the physical embeddedness among social affiliations, including being close to parents, living with partners and interacting with former schoolmates.

Although economic incentives, urban amenities and preferential policies as migration drivers have been examined, our data suggest several novel aspects. First, career development and potential high income are more important than current salary, especially for young and newly graduated migrants. Second, various urban amenities, such as tolerance, the spirit of hard work, a social milieu of justice and innovation affect their decision. Third, as a unique state institution in China, *hukou* is a factor migrants must take into consideration. One of the attractive preferential policies carried out by the Shenzhen municipal government has relaxed the procedures for highly skilled migrants' access to Shenzhen *hukou*, much appreciated by the interviewees.

The core finding of this study is that we have identified social networks as an important driver of migration, especially networks of kinship, partnership and alumni. First, as the generation of the one-child policy, 22 interviewees stated that being close to 'home' (i.e., where parents live) would be convenient for taking care of ageing parents if needed. Thus, kinship drove their migration to Shenzhen because their parents lived in other parts of Guangdong Province. This pattern of kinship-induced migration is common among intraprovincial highly skilled migrants. Second, 15 interviewees stressed that they had migrated to Shenzhen to live with their partners based in the city. We further found that among these 15 interviewees, there were 8 men and 7 women, and their migration to join their partners revealed no gender differences. Therefore, the traditional patriarchal ideology of migrant women following men was not upheld. Third, nine interviewees stated that alumni in Shenzhen influenced their migration decision. University alumni associations often organised social events that brought together alumni with similar educational backgrounds and shared interests. The desire to regularly take part in such events pushed migration to Shenzhen. Further, although a majority of interviewees were driven by one type of social networks to Shenzhen, several interviewees highlighted their migration was driven by a combination of multiple types of social networks, for example, both kinship and partnership.

In addition to presenting our empirical findings, this article also contributes to theoretical debates on migrant social networks. Existing literature in migration studies largely emphasises how social networks, in terms of social capital, facilitate migrants' migration trajectories by providing substantial assistance and resources (e.g., job-seeking) (Boyd, 1989; Faist, 1997; Haug, 2008; Lu et al., 2013; Portes, 1995); it often ignores the distinction between the social network and social capital (de Haas, 2010). For the highly skilled

migrants in this study, social networks do not function as a form of social capital, as they do not rely on resources from their networks. We assert it is crucial not to conflate migrant social networks with social capital; they are not equivalent if migrants do not access resources through such networks. For example, our interviewees pointed out that while looking for jobs in Shenzhen, they were not assisted by their social networks. Instead, they found jobs through formal job-seeking methods, such as applying for posts published on advertisement websites. They stressed that their skills and education were vital for them to obtain job offers. In short, their high human capital helps them to secure job positions rather than relying on resources from social networks. Further, interviewees stress the vital influence of social networks on their migration to Shenzhen because the intangible gravity of their social networks draws them to move there.

Further research exploring highly skilled migration should consider the social network driver and may apply quantitative methods. Because of national and regional social-cultural differences, the impact of social ties on highly skilled migration may vary among countries or regions, deserving further scholarly attention. As discussed in the Introduction section, quantitative methods with the advantage of using large samples can examine the social drivers of migration at much larger geographical and demographic scales than qualitative research. By studying the correlation among factors, further quantitative research can help to compare the different impacts of various drivers including social network and test the theoretical finding of social affiliation in highly skilled migration.

In sum, for the highly skilled migrants in this study, social networks do not act as a form of social capital; instead, they represent social affiliation, namely social relationship, as a crucial driver for their migration to Shenzhen. These highly skilled migrants are young talented workers and seek physical embeddedness within their social networks that provide them with a sense of social affiliation; we thus coin the term 'migration for social affiliation'. Differing from existing studies underlining *social networks* utilised for migration, this research highlights migration for the sake of *social networks*, providing a novel understanding of the dynamics of migrant social networks.

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CONFLICT OF INTEREST STATEMENT

The authors declare no conflicts of interest.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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