# The Study-to-work Transition of Chinese International Students: Navigating a Future in the Global Labour Market

Manli Xu[1], Meng Zhan[2*]
(School of Innovation and Entrepreneurship, Wenzhou University, Wenzhou)

**Abstract:** In the global competition for talents, the massive inflow of Chinese students into the UK has drawn great attention. However, only a few studies examine students' interactions with socioeconomic structures in their study-to-work transition. This study used Higher Education Statistics Agency (HESA, 2021) data and interview data collected from Chinese postgraduate students, and it aims to: investigate structural factors that influence post-study migration patterns of Chinese students; and explore how Chinese students interact with wider social structures. This study found that different configurations between students' "goals," "actions," and "reflexivity" would lead to different employment outcomes. Three different study-to-work transition strategies were identified: "proceeding without a fixed plan"; "reaching a compromise"; and "knowing goals and approaching goals". Findings suggest that the transition between study and work is more complex than what is described in human capital and push-pull approaches. A better understanding of students' decision-making processes would help higher education institutions in preparing graduates for careers in the global labour market.

**Keywords:** Chinese international students; study-to-work transition; labour market; structuration theory, the United Kingdom (UK)

## 1. Introduction

Along with China's dramatic economic development over the last two decades, there has been a significant increase in the number of students studying abroad. China is now the world's largest source country for international students, with the number of Chinese students

[1]Manli Xu, Lecturer, School of Innovation and Entrepreneurship, Wenzhou University, manli.xu@wzu.edu.cn
[2]Meng Zhan, Lecturer, School of Innovation and Entrepreneurship, Wenzhou University, m.zhan@wzu.edu.cn

studying abroad increasing dramatically from 137,620 in 1998 to 1,061,511 in 2019. (UIS, 2022a).As one of the most popular destination countries for Chinese students, the United Kingdom received 122,140 Chinese-domiciled students in 2019, which accounted for 24.98% of all outbound mobile students (UIS, 2022b). In the global competition for the highest-skilled workers and talents, the massive inflow of Chinese students into the UK Higher Education system has drawn much attention from researchers. Many scholars have attempted to comprehend how and why students migrate from China to the United Kingdom for higher education, such as motivations and decision-making processes for studying abroad and overseas experiences in the United Kingdom (Wu, 2014; Cebolla-Boado et al., 2017; Li, 2021). There is also a growing recognition of the need for more research into their post-study labor movements (Wu & Wilkes, 2017; Zhan et al., 2021).

While existing literature on post-graduate migration has mainly focused on analysing the influence of biographical, social, and economic factors on students' post-study labour movement from the perspectives of the human capital approach and the push-pull approach (Roh, 2014; Hawthorne & To, 2014), fewer studies examine students' interactions with socioeconomic structures in their study-to-work transition process. Based on the proposal of Li & Lowe (2015), in order to enhance students' knowledge and understanding of international student labour migration as well as their decision-making in this process, this study aimed to explore empirically the structure-agency interactions between Chinese international students and the wider social structures and how students navigate their way through the global labour market. This article will first assess the contribution and limitations of the human capital approach and the push-pull approach in studies of student migration. It will then examine how structure and agency are conceptually related in this particular research area. This study will show how students respond to and act within their personal, socioeconomic, and political contexts.

Finally, the paper will assess the contribution of the structure-agency approach to international student migration research as an alternative theoretical framework, as well as its implications for UK Higher Education Institutions and policymakers.

## 2. International student migration upon graduation: What do we know?

With the globalisation and internationalisation of higher education, the cross-border movement of international students has attracted the interest of academics and policymakers in recent decades. A substantial number of existing studies on international student migration have been conducted from various disciplinary perspectives, providing useful insights into what factors may shape student migration patterns and how. The two mainstream conceptual and theoretical accounts are most visible in the human capital approach and push-pull models. This paper will now look at the assumptions, contributions, and limitations of these approaches to international student migration.

Human capital theory has been widely used as an explanatory tool in the study of international student migration (Massey et al., 1993; Becker, 1993; Roh, 2014; Zhan, 2021).

One central assumption of this theory is that "investment" in migration has a positive relationship with individuals' labor-market productivity. Individuals are assumed to be rational beings who can make free and knowledgeable choices, and their migration decision would be the outcome of a cost-benefit calculation which could bring them the maximum expected gains (Sjaastad, 1962; de Haas, 2010; Duncan, 2008). The costs of migration include such things as the time and effort spent on learning a new language and culture, the difficulties and

stress of adapting to an unfamiliar labour market and society, and the financial costs of migrating to new places. Taking the corresponding migration costs into consideration, international students are expected to move where they can have the highest productivity as well as the highest positive and tangible returns, such as greater earning potential and a more satisfying lifestyle (Sumell et al., 2009). Under this theoretical framework, economic factors are thought to be the primary motivators that drive international students' migration after graduation, and a neoclassical economic model has been adopted to explain the rational cost-benefit decision-making process of international migration (Kim et al., 2010; Baláž & Williams, 2004). For students who travel across borders for knowledge acquisition, their investment in overseas tertiary education increases their stock of human capital (Becker, 1993; Wu, 2014), and the human capital that broadens their access to employment in host countries is also claimed to increase the possibility of migration (Tremblay, 2005).

Another dominant approach to international student mobility has been the push-pull approach. Much of the existing literature on overseas students' post-study movement intentions/decisions suggests that there are macro-level push-pull factors such as immigration policy and global political economy; meso-level factors such as migrant networks; and micro-level factors such as family ties, biographical and professional factors (Kim, 2014; Hawthorne & To, 2014; Musumba et al., 2011).

Push-pull models, like the human capital framework, place a strong emphasis on quantitative methodologies: migration outcomes are assumed to have statistical correlations with a variety of factors. To explain why not all students in similar socioeconomic situations make the same migration decision, push-pull approaches have been attempted to incorporate more vectors into equations, such as career aspiration (Hoppe & Fujishiro, 2015), marital status (Bijwaard & Wang, 2016), gender factor, and the student's integration into the host country (Lu et al., 2009; Zhan et al., 2021).

As a result, this approach is said to be capable of synthesizing individual backgrounds and institutional structures in order to provide explanations for student migration decisions from multiple perspectives (Kim, 2011). The broad migration patterns of international students and their associations with international heterogeneities in the economy, politics, and other social spheres identified by push-pull models may also be useful in policy-making (Li & Lowe, 2015).

However, the human capital approach and push-pull models have not been without their criticisms. First, these two accounts tend to treat international students as individuals who make economically rational choices based on complete information (Li & Lowe, 2015). Many previous studies suggest that individuals are neither technically rational nor irrational in making career decisions (Geddie, 2012). Rather, individual's choice in education and employment is "sub-rational", which suggests that students might be satisfied with making a "good enough" choice rather than an optimum alternative (Foskett & Hemsley-Brown 2001, p.212). Similarly, Hodkinson and Sparkes (1997, p.33-34) argue that students' career decision-making process is "pragmatically rational" which is bounded by individual's "horizons for action". In other words, decision-making is context-dependent, which means it cannot be separated from a person's family, cultural background, and previous experience.

Aside from university career services, employer websites, and recruitment agencies, international students may make career decisions based on information and advice received from their social networks, such as friends and family members (Marcu, 2015; Geddie, 2012). Nonetheless, the information received by decision-makers is frequently incomplete or incorrect.

Furthermore, the way people receive and censor information may be biased in order to support and protect their previously held beliefs, opinions, and attitudes (Simon, 1957), which calls into question the assumption of rational choice with complete information. Another key criticism of the push-pull framework is its underlying views of human agents and their interactions with social, economic, and political structures. By placing significant emphasis on the simplistic and mechanistic links between a given set of push-pull factors and various observed migration activities of international students, the push-pull approaches tend to underestimate international students' active engagement with the dynamic structural forces (Wu & Wilkes, 2017). The linkages assumed by push-pull models might not be able to reflect the internal reality of students. For instance, with the completion of their studies in host countries, international students might have different career aspirations, migration plans, and life goals due to their personal growth and development during that period (Basford & van Riemsdijk, 2015). Their study and living experiences, as well as adaptation and adjustment to the language, culture, society, and labor markets in their host countries, may give them a different perspective on which migration decision is best for them.

Rather than simply reacting to institutional factors in ways determined by their socioeconomic and biographic backgrounds, international students are complex social beings with reflexive agency capable of more than rational analysis (Li & Lowe, 2015; Archer, 2007).

### 2.2 Student migration: agency, structure and self-identity

After examining dominant approaches to international student cross-border migration for employment and their limitations, we will now consider an alternative approach based on Antony Giddens' (1986) structuration theory. This study believes that the structuration approach may be more effective in capturing the complex and dynamic nature of international students' labor migration in the context of higher education globalization and internationalization.

Students in this era have more advanced tools and better abilities to learn about this world of rapid change and mixed power relationships. They have far more options and possibilities than previous generations. Education and employment are no longer limited to local areas in this increasingly globalised world, thanks to advances in technology and transportation. Students become reflexive cognitive actors who practice their mental abilities and connect with their social contexts by making meaningful and knowledgeable decisions about where to study and work with information received from multiple sources (Giddens, 1979).

Obtaining a postgraduate degree and finding a job are unquestionably momentous occasions for international students. By moving to another country, students are breaking free from their "protective cocoons," interacting with new routines, and thus constructing new identities in order to strike a balance between opportunities and risks (Giddens, 1991, p.54). This type of change is based on being aware of one's thoughts and feelings, as well as being aware of social rules and resources. Their labour market and migrant identities are therefore mediated by the dynamic global labour market context and the individual's social and cultural experiences. Students' assessments of the potential risks of their fateful moments, here referring to career choices, would be influenced by their new understanding of themselves, labor markets, career development, economic situations, government policies, and family expectations, among other things.

In the age of globalisation, human social practices are moving forward and moving away from traditional rules and regularities. In the meantime, society and systems are not just repeating themselves. Instead,

they are in the process of production and reproduction through human actions. According to Giddens (1986), structure and agency are interrelated and inseparable, and structural properties are both the sources and results of social practices that are situated in time and space. By adopting a structure-agency approach, this study can frame international student labor migration more than the outcome of static push-pull factors. Compared to the human capital approach and push-pull models, the structuration approach places more emphasis on relationships between individuals and the social, economic, and political environment, which in turn allows a more socially contextualised analysis of the labour migration decisions of international students.

### 2.3 Research context: the cross-border movements of Chinese international students

International students are not only migrants who cross borders in search of knowledge; they also have social, cultural, and current or prospective worker roles and identities. Their decision to migrate after completing their studies in host countries is not a one-time, static individual choice. Rather, it is the result of a long-term dynamic process in which students actively interact with changing economic, social, cultural, and political contexts (Basford & van Riemsdijk, 2015; Van Mol & Timmerman, 2014; Wu & Wilkes, 2017; Zhan et al., 202; Zhan, 2021).

The structural contexts faced by Chinese overseas students in the recent decade is much more dynamic and complex than before. On the one hand, China's thriving economy and its increasing participation in international trade and commerce has increased its demand for workers with competitive skills and advanced foreign language proficiency (Cheung & Xu, 2014). China's central government and regional authorities have therefore launched a series of talent recruitment plans (especially in Science and Engineering areas) in attracting foreign-trained students and professionals to return (Yang, 2011). In addition, the declined absorptive capacity of labour markets and the tightened immigration regulation in developed economies have made it more difficult for international students to obtain employment and visas in host countries (Pan, 2010). The 2008 global financial crisis increased competition among highly educated international students for desirable jobs in Western countries.

Recent major events, such as the cancellation of Post-Study-Work (PSW) visas in the United Kingdom in 2012, the UK referendum to leave the EU, and the election of Trump as President of the United States, indicate that there is significant anti-immigrant sentiment in these two popular study destinations (Choudaha, 2017).

Returning to work in China after graduation is becoming increasingly appealing for Chinese students, and many highly skilled Chinese returnees who have studied or worked in the US and UK believe that career opportunities and quality of life in China are better than in the US (Wadhwa, 2009; Gu & Schweisfurth, 2015). Between 1978 and 2006, only about 26% of foreign-trained Chinese students returned to work in China (Pan, 2010). By 2017, the overall return rate had risen significantly to 83.73 percent (Ministry of Education, 2019).

Returning to China after graduation appears to be a popular migration pattern among Chinese students. On the other hand, the opportunities and challenges in China's labor market are becoming more complex for this generation of foreign-educated Chinese students. Because of the massive expansion of higher education in China and the growing number of returnees, an increasing number of graduates with advanced degrees are looking for work in China. Prestigious overseas qualifications can still provide Chinese returnees with some advantages, but they are no longer a guarantee of well-paying jobs and a desirable working environment in China's crowded labor market (Hao et al., 2016; Shen, 2005). Furthermore, reverse culture

shock and re-integration into China's rapidly changing society may pose problems and challenges for Chinese international students who plan to return home (Hao & Welch, 2012).

The term "Chinese international students" implies that this group of student migrants is homogeneous and that their reactions to structural contexts are culturally determined. Although Chinese international students share certain identifiable cultural characteristics, it is also important to recognize their differences in: social and familial backgrounds; career aspirations; motivations for studying abroad; lifestyle preferences; individual personalities; and the social contexts in which interactions occur. Furthermore, individuals' career and migration intentions change over time as a result of their active and ongoing interactions with the larger social and economic environment.

Previous research has found that students' study and work experiences in host countries, social and emotional adaptations, and the reflexive evaluation of their past in China all have a significant impact on their perceptions of themselves, i.e., identity as an international student migrant (Gu & Schweisfurth, 2015; Gu, 2009).

Rather than reacting passively to pre-existing social relations and structures, international students would use agency to negotiate their sense of self-identity. Students' identities would be re-evaluated in the international labor market based on their socially constructed knowledge and understanding of structural contexts, which would shape their future career orientations and corresponding labor market actions in achieving their goals.

**3. The present study**

This study aimed to explore the labour migration patterns of Chinese postgraduate students who graduated from UK universities and how they navigated their way through the dynamic social structures. The main research questions were:

• What are the employment destinations of Chinese international students? What are the factors influencing students' migration patterns?

• How did students understand and respond to their career opportunities and challenges?

• What were students' strategies for choosing employment destinations?

3.1 Quantitative data

The quantitative data was extracted from the "Destinations of Leavers from Higher Education" (DLHE) dataset (2011/12-2016/17) (HESA, 2020). This is the very first census survey dataset that provides a country-level overview of post-study employment activities of non-EU graduates in the UK HE system. The target sample of this study was mainland Chinese students of working age (younger than 60) who had finished a full-time Masters or doctoral degree course from a UK HEI. In total, 27466 students from 135 higher education institutions replied to their location of employment, which indicated a response rate of 35.6%, and more than half of the respondents (68.3%) graduated from Russell Group universities. In terms of subject area, respondents were classified into three categories: STEM (28.1%), Business & Administrative Studies (BAS) (43.2%), and other non-STEM (28.7%). The vast majority of them (93.3%) were studying Masters courses, and 95.5% of them were younger than 30.

3.2 Qualitative data

The interviews were conducted to learn about students' previous study-to-work transition experiences and how those experiences influenced their ongoing interactions with social structures. The design of qualitative data collection and analysis was informed by the results of quantitative analysis, with a total of 13 Chinese postgraduates who graduated from University A between 2014 and 2018 being sampled for semi-structured telephone interviews.

University A is a Russell Group university in

the United Kingdom with a relatively high number of international students, particularly graduates from Mainland China. Interview participants were recruited from the same university using a convenience sampling approach, with self-reflections and narrative inquiry as complementary research tools, allowing us to understand the significant meaning that this Chinese student group attached to their overseas study-to-work transition experience. Rather than comparing differences in job-seeking strategies among students from various universities, one of the goals of this study is to investigate how individuals negotiate with the larger structural labor market.

The recruitment post for interview participants was published on Chinese Students & Scholars Association (CSSA) Wechat (the most popular social media platform among the Chinese community), and participants were recruited through voluntary sampling. Table 1 details their social and biographic characteristics. All interviews were conducted in Mandarin by the author and audio-recorded for transcription and translation.

According to the qualitative data analysis, the information provided by these participants has reached data saturation, which means that additional data collection would produce similar results. The translated transcripts were analyzed using a hybrid approach of inductive and deductive thematic coding (Fereday & Muir-Cochrane, 2006). The quantitative findings and previous studies were used to build the coding frame. Predetermined codes and codes derived from transcripts were assigned to categories, which were later summarized in developing themes.

**4. Post-study labour migration patterns of Chinese postgraduates**

Between 2011/12 and 2016/17, there were significant differences in the labor migration patterns of doctoral students and masters students (Figure 1).

First, doctoral students had a much better chance of finding work in the UK than master's students.

Second, the stay-rate of Masters students has decreased significantly since 2012/13, whereas the stay-rate of doctoral students has remained relatively

**Table 1. Social and biographic characteristics of interviewees**

| Name | Age (in 2018) | Gender | Subject area | Level of study | Marital status | Worked in China prior to study | Location of employment |
|---|---|---|---|---|---|---|---|
| XK | 30 | Male | Non-STEM | PhD | Married | No | France |
| ZH | 23 | Male | STEM | MSc | Single | No | China |
| YY | 28 | Female | Non-STEM | MSc | Single | No | China |
| JY | 33 | Female | Non-STEM | MSc | Single | Yes | China |
| GJ | 30 | Female | Non-STEM | MSc | Married | Yes | China |
| XQ | 28 | Female | STEM | PhD | Married | No | UK |
| HL | 27 | Female | Non-STEM | MSc | Single | No | China |
| XY | 31 | Female | Non-STEM | MSc | Married | Yes | UK |
| SW | 31 | Male | STEM | PhD | Married | Yes | UK |
| KH | 27 | Male | Non-STEM | MSc | Single | No | China |
| YH | 28 | Male | STEM | MSc | Single | No | Canada |
| JK | 26 | Male | Non-STEM | MSc | Married | No | China |
| XG | 28 | Male | STEM | MSc | Married | No | China |

stable during the same period.

This could be because the Post-Study Work (PSW) visa route for international students was closed in 2012, and the new regulation only allows doctorate recipients to apply for a one-year Doctoral Extension after graduation. Third, non-STEM doctoral students were less likely to work in the UK than STEM doctoral students, but this difference in stay-rate by subject area is very small among Masters students (Figure 2).

Males (15.3 percent) were more likely to stay than females (12.6 percent) (=41.065, d.f. = 1, p0.001).

When their level of study was taken into account, females (10.8 percent) had a higher chance of staying than males (9.5 percent) (=11.797, d.f. = 1, p=0.001), but this difference was not statistically significant between males (59.2 percent) and females (55.6 percent) at doctoral level (=2.305, d.f. = 1, p=0.129).

When the subject area was considered, there was a significant difference in stay-rate between males (22.4 percent) and females (19.6 percent) in the STEM area (=9.302, d.f. = 1, p=0.002), but no significant difference in stay-rate between males (10.1 percent) and females (10.8 percent) in the non-STEM area (=2.543, d.f. = 1, p=0.111).

It is worth noting that the university from which Chinese students graduated may have an impact on their labor migration flows.

Those with degrees from G5 (i.e., Oxford, Cambridge, UCL, LSE, and Imperial College) universities (25 percent), the most prestigious universities in the UK, were more likely to stay in the country for work than those with degrees from other Russell Group universities (10.1 percent) and non-Russell Group universities (13.5 percent) (Figure 3).

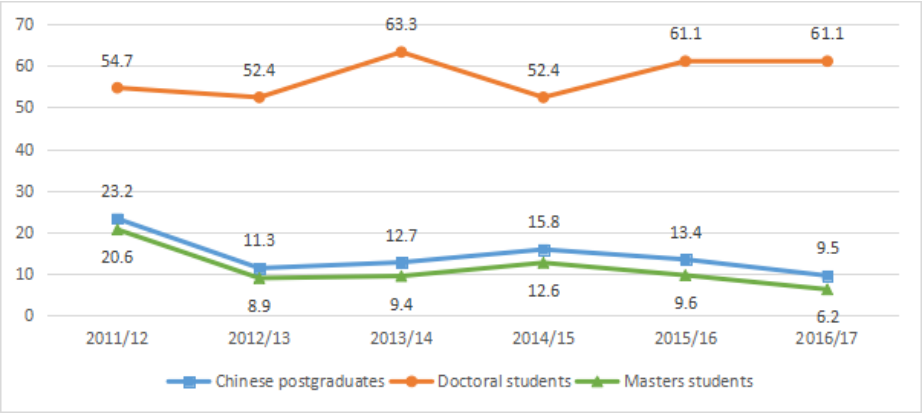


Figure 1. Percentage of Chinese postgraduate students remaining in UK for employment, by level of study, 2011/12-2016/17

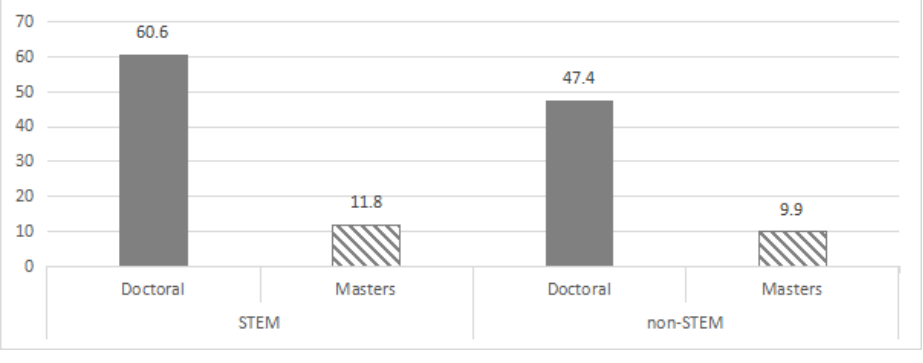


Figure 2. Stay-rate of Chinese postgraduate students, by subject area and level of study, 2011/12-2016/17

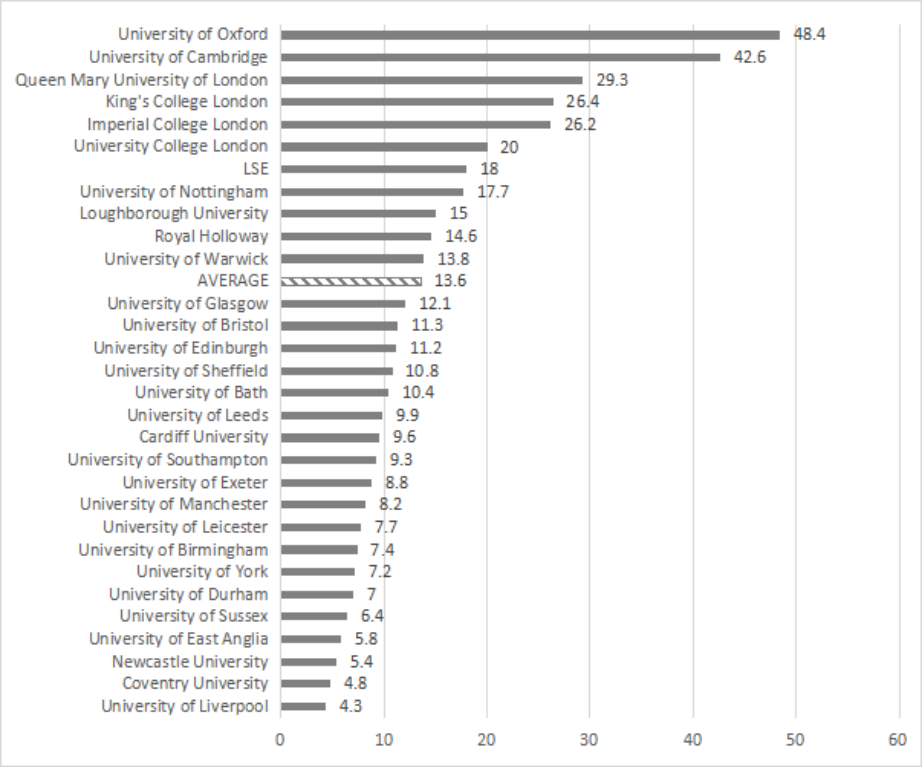


Figure 3. Stay-rates of Chinese postgraduate students who graduated from the top 30 HEIs that received the highest numbers of Chinese postgraduate students in 2011/12-2016/17

**5. How Chinese students navigate their way in global labor market**

By bridging together patterns identified in the quantitative analysis and the themes formed from the qualitative data, it becomes clear that, although students' decisions in choosing employment locations were heavily shaped or even constrained by structural factors, many of them have managed to actively interact with political and socioeconomic relations and to construct new self-identity.

5.1 Chinese students' knowledge of their career opportunities and challenges

UK immigration policy was found to be one of the most critical structural factors in determining Chinese students' possibilities of finding a job in the UK, especially for Masters graduates.For many Master's students in this study who had the intention of gaining work experience in the UK, the strict visa restrictions were the biggest difficulty for them in securing employment, and eventually all of them had to return to China after graduation. For example, YH, 28 years old, who finished his Master's degree in STEM reported that,

I received an invitation email from my faculty student office, which encouraged us to attend a career talk delivered by a large UK company. My classmates and I attended the talk, and we even discussed which positions we should apply for. However, we were informed at the very end of the talk that those posts were only available for EU citizens.

This was a common occurrence among Chinese students. Some Masters graduates who attended university career fairs stated that many local companies were unable to provide visa sponsorship to applicants from outside the EU, making it nearly impossible for them to get those jobs.

In the aftermath of the 2008 financial crisis, economic recession, and increased domestic unemployment, the policy environment in Britain

gradually shifted to a goal of reducing the overall number of immigrants to the UK, which includes international students (Tannock, 2013).

The cancellation of the PSW visa scheme, as well as restrictions on international student employment, has given Chinese students the impression that the UK labor market is hostile to international students:

"I did not plan to stay in the UK for employment because I know it is extremely difficult for international students to find jobs here" (YY, Masters, non-STEM, 28).

The Doctoral Extension Scheme (DES), which allows doctoral graduates to extend their visa for a year to work or look for work in the UK, was mentioned by interviewees with doctoral degrees as one of their advantages in the UK labor market when compared to international Master's students. All three of them stated that they were fully aware of their eligibility to apply for the visa extension as well as the application requirements.

SW, STEM, 31, expressed concern that he might not be able to keep his current job without the assistance of a DES visa.

"I planned to remain in my research group to work as a postdoctoral researcher before the completion of my study, but for some reasons the position was not available until few months after my graduation. I applied for the DES visa, so I was able to stay in the UK and wait for the application to be opened."

It appears that the strict UK immigration policy increased difficulties for Masters students' job searching in the UK. However, the findings indicated that as Master's students they were disadvantaged relative to their international student counterparts in competing for limited visa sponsorship. All the Chinese Masters students in this study were family-sponsored rather than being sponsored by UK higher education institutions, UK research councils, or the UK government. Participants in this study were relatively young, lacked work experience, and struggled to incorporate the learning of independence during overseas study, which is consistent with previous studies on Chinese internationally mobile students (Lu et al., 2009; Li & Lowe, 2015). For most Chinese Master students, the decision of whether to stay permanently is not made on their own but encompasses a complex mix of structural issues. Because postgraduate taught degree courses in the UK typically require only one year of full-time study, Chinese students in Masters programmes have less time to accumulate speciality-related work experience and present a compelling narrative of employability to convince local employers that they have adapted to the UK labor market.

According to the quantitative findings, among all Chinese students, graduates with doctoral degrees in STEM fields had the best chance of staying in the UK (60.6 percent , Figure 2).

This finding is consistent with previous research from Australia (Hawthorne & To, 2014) and the United States (Kim et al., 2011), which indicate that international students with higher levels of education in highly needed fields are more likely to stay in host countries for work.

The high demand for skilled workers in STEM fields in the UK may explain in part the high retention rate of this select group of Chinese students (BEIS, 2017). This smooth integration into the labor market in the UK was also noted by interviewees with doctoral degrees in STEM:

"I know I can get jobs in the UK long before my graduation, as many postdoctoral researchers in my research group told me do not worry about finding jobs in the UK" (SW, PhD, STEM, 31).

A supply-demand issue challenges a Chinese student group's understanding of labor market conditions in the host country, which has been influential in framing one's self-confidence for career planning.

Furthermore, evidence in this study suggests that, in addition to focusing on academic ability, PhDs in STEM fields should make good use of social capital, such as by actively participating in academic social networks and other types of social activities and connecting with significant ones. XQ, STEM, 28, stated that lab-based PhD students are more likely to use their social networks for job searching, regardless of whether they are in the host or home country.

"The most common way to find a job in our discipline area is through an internal referral by someone we work with in the lab. Many graduates who worked in universities and industry would refer us for jobs."

Furthermore, students' fields of study were discovered to have an impact on their career destinations in China, particularly for students studying finance-related subjects.

Consistent with Jackson et al. (2021), the findings showed that Chinese students studying finance-related subjects were less likely to prioritize working for the Big Four compared to those studying accounting only, but they expressed a strong desire to pursue careers in specific Chinese metropolitan cities, such as Beijing and Shanghai.

Despite the fact that living in big cities is expensive and associated with high levels of burnout, the investment is worthwhile for one's career development. They believe that facilities, financial resources, and career opportunities in metropolises are far superior to those in their home cities. For example, HL, Masters, non-STEM, 27, who worked in a fund company, noted:

"If I stayed in my hometown, I probably could only work in commercial banks. However, in Shanghai, the financial center of China, you can find many different types of financial institutions, such as investment banks, securities companies, fund companies, and insurance companies. Unless there is a financial crisis and Shanghai is losing its competitiveness, I do not think I will leave Shanghai in the short-term."

Although structural factors such as immigration policy influenced the Chinese student group's career decisions, it appears that opportunities for career advancement and professional development, as well as working in a job that aligned with their personal values and aspirations, encapsulated their understanding of career opportunities and challenges, in addition to whether or not to stay in the UK.

### 5.2 Chinese students' reflection overtime: intentions and actions in post-study labor movement

Due to the personal growth throughout their course of studies and early careers, Chinese students' intentions for career development and preferences for employment location would be adjusted or changed over time (Wu & Wilkes, 2017). This study has identified three different strategies from the on-going and dynamic interactions between students' agency and structural contexts.

*Proceeding without a fixed plan*

Because of the uncertainty surrounding their future careers and migration plans, some Chinese international students purposefully choose not to work toward a specific career goal. Students' intentions and aspirations for careers and employment locations are shaped by their past personal, academic, and work experiences, and their labour migration decisions are based on the negotiation between their intentions and aspirations and their knowledge about career opportunities (McAlpine & Amundsen, 2018). The first uncertainty relates to the changes in socioeconomic and political contexts over time. Students were aware that viable and desirable employment options could change due to the shifting structural contexts. For example, ZH, Masters, STEM, 23, noted:

"This world is changing so fast, and I was not sure what job in which country would be more suitable for me when I finish my studies. That is why I

decided not to have a fixed career plan for the future."

The second source of uncertainty is the evolution of students' intentions or aspirations over time. As previously stated, prior experiences shape students' intentions and aspirations. Chinese international students' engagements with social relations and labor markets during their studies and earlier careers may cause them to adjust or even change their original intentions or aspirations based on their reflections on recent experiences.

"I had planned to work for the State Grid Corporation of China since my first year of undergraduate studies in China, because many alumni told us that it was probably the best employment option for students in our field. After finishing my studies in the UK, I was hired by State Grid and worked there for nearly two years. During that time, however, I gradually realized that, despite the high salary, it was not the job for me. I didn't like the company's poor working environment, poor work-life balance, and limited opportunities for advancement. When I reflect on my initial intention, I realize I was simply following the crowd. I wanted to have a different life, so I quit my job and went to Canada for another Master's course in business. Now I am working on an entrepreneurship program in Canada, but I may give up this program if I feel it is not suitable for me. I did not want to give myself a very clear career plan for the future, as I know that I might change my mind again when I have more personal and work experience." (YH, Masters, STEM, 28)

Going forward without a specific career plan does not imply that those students preferred not to actively consider their future careers. Rather, this strategy was an active response to changing personal circumstances and structural context.

*Reaching a compromise*

For a variety of reasons, international students were unable to meet their initial employment goals in some cases. These students had clear plans for their future careers and preferred employment locations based on their aspirations and prior knowledge of labor markets, organizational structures, and government policies. Their knowledge, however, may be incomplete or incorrect.

The accumulation of networking in related sectors and participation in career exploration resulted in a more robust knowledge of available opportunities, providing students with a new perception of viable employment options (McAlpine and Amundsen 2018). For example, KH, Masters, non-STEM, 27, who was working in Shanghai, China, commented:

"I chose to study abroad because I admire Western countries' lifestyles and values, which I believe are very important to me. When I decided to stay in the UK for work, I had no idea how difficult it would be to find a job in the UK for international students. Before finishing my studies, I applied for numerous jobs. However, no employers responded to my application. I eventually decided to work for a foreign company in Shanghai because I believe it is the most internationalized city on mainland China and could provide me with the lifestyle I desired."

Students' knowledge about labour markets could also be out-of-date because of the changes in structural contexts throughout their course of studies. As JY, Masters, non-STEM, 33, who was working in Shenzhen, a metropolis in south China, noted:

"My parents wanted me to leave Shenzhen and return to my hometown to find a stable job before going abroad to study. Despite the fact that I was tired of my job in Shenzhen at the time, I was hesitant to return. My parents and I agreed that if I could get a job as a teaching assistant at our local community college, I would stay in my hometown. They required at least a Masters degree for applicants, which is why I chose to study abroad. When I returned, however, the new requirement was a PhD, which meant that working at that specific college was no longer an option for me. To obtain a sense of belonging somewhere, I decided

to return to Shenzhen as soon as I was able."

Relationships and the desire to feel important to others were also discovered to have an impact on students' desired or possible career options. For East Asian students raised in Confucian culture, the greater good of the entire family, particularly spouses and parents, is usually more important than individual desires (Lee & Kim, 2009). For instance, XY, Masters, non-STEM, 31, noted:

"Before moving to the UK, I worked for a securities firm in Beijing. I wanted and planned to return after graduation, but my husband was in his second year of a PhD in the UK. I didn't want to be apart from him for too long, so I quit my job at a Chinese securities firm and moved to the UK on a dependent visa. Currently, I am working a non-professional job that does not require any of my expertise."

JK, Masters, non-STEM, 26, noted:

"I've always wanted to work in China's big cities because I enjoy the lifestyles there. After finishing my studies, I found a job that I enjoyed in Beijing. My parents, on the other hand, wanted me to return to my hometown. They wanted me to get a PhD at our local university and then work as an academic staff member. I couldn't say no to their proposal because of my filial obligations to them."

*Knowing the goals and approaching the goals*

While some students made compromises in their career choices, others were able to obtain desired jobs in preferred locations. Achieving a career goal is not the result of a one-time static labor movement decision.

Alternatively, it is the result of active and ongoing negotiation between students and dynamic structural contexts, which is also the process of constructing their identities as workers and migrants in order to strike a balance between opportunities and risks. As XQ, PhD, STEM, 28, noted:

"I didn't have any career goals at the start, so I focused on gaining as much work experience as possible, adapting to English society, and improving my skills in various areas. If I were good enough, I believed that career opportunities would come to me. I've worked as a pizza shop receptionist, a student ambassador, a student recruitment staff member, and a teaching assistant over the last eight years. With that work experience, I knew I was capable of more than just conducting experiments in a laboratory, and I realized I wanted to pursue a career outside of academia. That is why I declined a position as a researcher at a Dutch university.Going to Holland also meant I'd have to give up the networks I'd built in the UK, and my husband might not be able to find work there."

This case resonates with Pham et al., (2019) that international students should be strategic with what they are involved in and doing, so they can have access to more types of resources to enrich career opportunities. XQ eventually found her dream job in the UK, in the same city in which her husband was working. Although it was an unexpected career opportunity, her rich work experience in the past, together with her PhD degree in STEM, helped her successfully obtain the job. Her self-reflection on what she was capable of doing and what she desired to do, together with her concerns about her social network in the UK and her relationship with her husband, eventually led her to apply for and then accept that job. What has been emphasised by XQ was: "Making a choice is easy, but making an informed choice is difficult," which stressed her agentive actions in making herself informed about tasks and responsibilities in different jobs.

**6.Conclusion and implication**

This study has examined the employment destinations of Chinese international students who received postgraduate degrees from HEIs in the UK, and it has extended understandings of Chinese

students' study-to-work transitions in the context of the global labour market. The transition experiences of the Chinese international students in this study reveal three distinctive strategies that different groups of students have adopted in their agentive engagements with the dynamic social relations and global labor markets throughout their course of studies and early careers. They also point to the necessity and appropriateness of using structuration theory as an analytical framework.

The use of structuration theory as a conceptual framework for the study of international student migration allows researchers to investigate students' post-graduate migration flows while also acknowledging individuals as sophisticated social beings with reflexive agency. In contrast to push-pull models, which tend to make mechanistic links between given factors and observed migration outcomes, the structure-agency approach focuses on the relationship between individuals and the larger social and economic contexts in which they exist.

Participants' experiences in this study demonstrated that humans are not passively responding to structural factors.

In contrast, their post-study labor mobility was a dynamic, socially and biographically embedded process that encourages graduates to actively negotiate their future positions in the global labor market. Under the fluid conditions of late modern social relations, international students' ongoing reflections on prior social, cultural, educational, and work-related experiences shape their agency-driven orientations to future career actions. Furthermore, the specificity of people's career goals varies, and everyone has a different capacity for working toward a goal. Students' strategies, such as proceeding without a fixed plan, compromising, and approaching goals, are meaningful and purposeful actions that reflect their reflexive understanding of themselves as individual agents within the larger social and economic structures that frame their intentions and aspirations.

The study's findings have implications for policymakers and higher education institutions in the United Kingdom. Many current government policies, whether in relation to the points-based system and Doctoral Extension Scheme in the UK, or initiatives to attract foreign-educated students to return to China (Yang, 2011), appear to be based on human capital theory (Becker, 1993).

One of the theory's fundamental assumptions is that individuals are economically rational beings with complete access to information. The study-to-work transition experiences reported by these interviewees revealed that many non-economic factors, such as family relations, cultural affiliation, and belongingness, were found to have a significant influence on Chinese international students' migration flows.

In addition, the lack of accurate and up-to-date information about labor markets may lead to greater uncertainties and risks in students' future careers, which in turn would influence their aspirations and decisions in terms of employment locations. In order to attract more skilled graduates to stay, the British government and higher education institutions need to provide more support to students in enhancing their knowledge of labour markets and society. For instance, higher education institutions in the UK have not paid enough attention to the employability needs of international students (Huang & Turner, 2018). UK policymakers could encourage university career services to proactively assist international postgraduate students in understanding the UK labour market at the beginning of their courses, so students who had the intention of remaining in the UK for employment would have more time for preparation and have a more robust understanding of viable employment options in the UK. Furthermore, in order to reduce the uncertainties and challenges that Chinese international students face in their future work and

life in the UK, the government and higher education institutions could take steps to promote students' cultural and social adaptation and integration in the UK.

The analysis of structure-agency interactions between international students and broader socioeconomic contexts, as presented in this study, has important implications for understanding and managing the movements of international postgraduates as an important group of highly skilled migrants. The secondary data used in this study, however, was not originally intended to investigate students' agentive interactions with structural relations. The impact of many social and economic factors on students' migration patterns could not be studied due to a lack of data. This is a significant shortcoming in using this study to test the structural-agency framework. To gain a better understanding of how international student migrants interact with socioeconomic structures, future studies should conduct better-designed surveys and provide more empirical statistical models.

While the dataset used in this study includes both quantitative and qualitative data, it has limitations, and the results should be interpreted with caution. The interviewees were all drawn from the same university. As a result, the study's findings could not be generalized beyond the selected sample, and differences in mobility strategies of students from different universities could not be investigated due to a lack of relevant data in the dataset, which would be an aspect for future research.

## Funding

This research is supported by the Wenzhou Social Science Fund (Grant No. 21JD10).

## References

Archer, M. (2007). Making our way through the world : Human reflexivity and social mobility. Cambridge University Press.

Baláž, V., & Williams, A. M. (2004). “Been there, done that”: International student migration and human capital transfers from the UK to Slovakia. Population, Space and Place, 10(3), 217–237. https://doi.org/10.1002/psp.316

Basford, S., & van Riemsdijk, M. (2015). The Role of Institutions in the Student Migrant Experience: Norway’s Quota Scheme. Population, Space and Place, 23(3), e2005. https://doi.org/10.1002/psp.2005

Becker, G. S. (1993). Human Capital : a Theoretical and Empirical Analysis, with Special Reference to Education (3rd ed.). University of Chicago Press. (Original work published 1964)

BEIS. (2017). Building our Industrial Strategy: Green Paper. London: BEIS.

Bijwaard, G. E., & Wang, Q. (2016). Return Migration of Foreign Students. European Journal of Population, 32(1), 31–54. https://doi.org/10.1007/s10680-015-9360-2

Cebolla-Boado, H., Hu, Y., & Soysal, Y. N. (2017). Why study abroad? Sorting of Chinese students across British universities. British Journal of Sociology of Education, 39(3), 365–380. https://doi.org/10.1080/01425692.2017.1349649

Cheung, A. C. K., & Xu, L. (2014). To return or not to return: examining the return intentions of mainland Chinese students studying at elite universities in the United States. Studies in Higher Education, 40(9), 1605–1624. https://doi.org/10.1080/03075079.2014.899337

Choudaha, R. (2017). Three waves of international student mobility (1999–2020). Studies in Higher Education, 42(5), 825–832. https://doi.org/10.1080/03075079.2017.1293872

de Haas, H. (2010). Migration and Development: A Theoretical Perspective. International Migration Review, 44(1), 227–264. https://doi.org/10.1111/j.1747-7379.2009.00804.x

Duncan, N. T. (2008). Brain drains, brain gains and migration policies. In Migration and Human Capital (pp. 259–279). Edward Elgar Publishing.

Fereday, J., & Muir-Cochrane, E. (2006). Demonstrating Rigor Using Thematic Analysis: A Hybrid Approach of Inductive and Deductive Coding and Theme Development. International Journal of Qualitative Methods, 5(1), 80–92. https://doi.org/10.1177/160940690600500107

Foskett, N., & Hemsley-Brown, J. (2001). Choosing futures : Young people's decision-making in education, training, and careers markets. Routledge/Falmer.

Geddie, K. (2012). The Transnational Ties that Bind: Relationship Considerations for Graduating International Science and Engineering Research Students. Population, Space and Place, 19(2), 196–208. https://doi.org/10.1002/psp.1751

Giddens, A. (1979). Central problems in social theory : Action, structure and contradiction in social analysis. Macmillan.

Giddens, A. (1986). The Constitution of Society : Outline of the Theory of Structuration. Polity Press.

Giddens, A. (1991). Modernity and self-identity: Self and society in the late modern age. Polity Press.

Gu, Q. (2009). Maturity and Interculturality: Chinese students' experiences in UK higher education. European Journal of Education, 44(1), 37–52. https://doi.org/10.1111/j.1465-3435.2008.01369.x

Gu, Q., & Schweisfurth, M. (2015). Transnational connections, competences and identities: Experiences of Chinese international students after their return "home." British Educational Research Journal, 41(6), 947–970. https://doi.org/10.1002/berj.3175

Hao, J., & Welch, A. (2012). A Tale of Sea Turtles: Job-Seeking Experiences of Hai Gui (High-Skilled Returnees) in China. Higher Education Policy, 25(2), 243–260. https://doi.org/10.1057/hep.2012.4

Hao, J., Wen, W., & Welch, A. (2016). When sojourners return: Employment opportunities and challenges facing high-skilled Chinese returnees. Asian and Pacific Migration Journal, 25(1), 22–40. https://doi.org/10.1177/0117196815621806

Hawthorne, L., & To, A. (2014). Australian Employer Response to the Study-Migration Pathway: The Quantitative Evidence 2007-2011. International Migration, 52(3), 99–115. https://doi.org/10.1111/imig.12154

Higher Education Statistics Agency (HESA). (2020). Definitions: Destinations of Leavers. Www.hesa.ac.uk. https://www.hesa.ac.uk/support/defini-tions/destinations

Higher Education Statistics Agency (HESA). (2021). Where do HE students come from? | HESA. Hesa.ac.uk. https://www.hesa.ac.uk/data-and-analysis/students/where-from

Hodkinson, P., & Sparkes, A. C. (1997). Careership: A sociological theory of career decision making. British Journal of Sociology of Education, 18(1), 29–44. https://doi.org/10.1080/0142569970180102

Hoppe, A., & Fujishiro, K. (2015). Anticipated job benefits, career aspiration, and generalized self-efficacy as predictors for migration decision-making. International Journal of Intercultural Relations, 47, 13–27. https://doi.org/10.1016/j.ijintrel.2015.03.025

Huang, R., & Turner, R. (2018). International experience, universities support and graduate employability: Perceptions of Chinese international students studying in UK universities. Journal of Education and Work, 31(2), 175–189. https://doi.org/10.1080/13639080.2018.1436751

Jackson, D., Richardson, J., Michelson, G., & Munir, R. (2021). Attracting accounting and finance graduate talent: Beyond the Big Four. Accounting & Finance. https://doi.org/10.1111/acfi.12904

Kim, D., Bankart, C. A. S., & Isdell, L. (2010). International doctorates: Trends analysis on their decision to stay in US. Higher Education, 62(2), 141–161. https://doi.org/10.1007/s10734-010-9371-1

Kim, J. (2011). Aspiration for global cultural capital in the stratified realm of global higher education: Why do Korean students go to US graduate schools? British Journal of Sociology of Education, 32(1), 109–126. https://doi.org/10.1080/01425692.2011.527725

Kim, S. (2014). The influence of social relationships on international students' intentions to remain abroad: Multi-group analysis by marital status. The International Journal of Human Resource Management, 26(14), 1848–1864. https://doi.org/10.1080/09585192.2014.963137

Lee, J. J., & Kim, D. (2009). Brain gain or brain circulation? U.S. doctoral recipients returning to South Korea. Higher

Education, 59(5), 627–643. https://doi.org/10.1007/s10734-009-9270-5
Li, Z. (2021). Security and identity: Threats and anxieties for the internationally mobile student. Journal of Youth Studies, 25(5), 1–15. https://doi.org/10.1080/13676261.2021.1918652
Li, Z., & Lowe, J. (2015). Mobile student to mobile worker: The role of universities in the "War for talent." British Journal of Sociology of Education, 37(1), 11–29. https://doi.org/10.1080/01425692.2015.1095636
Lu, Y., Zong, L., & Schissel, B. (2009). To Stay or Return: Migration Intentions of Students from People's Republic of China in Saskatchewan, Canada. Journal of International Migration and Integration / Revue de l'Integration et de La Migration Internationale, 10(3), 283–310. https://doi.org/10.1007/s12134-009-0103-2
Marcu, S. (2015). Uneven mobility experiences: Life-strategy expectations among Eastern European undergraduate students in the UK and Spain. Geoforum, 58, 68–75. https://doi.org/10.1016/j.geoforum.2014.10.017
Massey, D. S., Arango, J., Hugo, G., Kouaouci, A., Pellegrino, A., & Taylor, J. E. (1993). Theories of International Migration: A Review and Appraisal. Population and Development Review, 19(3), 431–466.
McAlpine, L., & Amundsen, C. (2018). Identity-trajectories of early career researchers: Unpacking the post-PhD experience. Palgrave Macmillan.
Ministry of Education. (2019). 2017 sees increase in number of Chinese students studying abroad and returning after overseas studies. En.moe.gov.cn. http://en.moe.gov.cn/News/Top
Musumba, M., Jin, Y. H., & Mjelde, J. W. (2011). Factors influencing career location preferences of international graduate students in the United States. Education Economics, 19(5), 501–517. https://doi.org/10.1080/09645290903102902
Pan, S. Y. (2010). Changes and challenges in the flow of international human capital China's experience. Journal of Studies in International Education, 14(3), 259–288. https://doi.org/10.1177/1028315308321746
Pham, T., Tomlinson, M., & Thompson, C. (2019). Forms of capital and agency as mediations in negotiating employability of international graduate migrants. Globalisation, Societies and Education, 17(3), 394–405. https://doi.org/10.1080/14767724.2019.1583091
Roh, J.-Y. (2014). What predicts whether foreign doctorate recipients from U.S. institutions stay in the United States: foreign doctorate recipients in science and engineering fields from 2000 to 2010. Higher Education, 70(1), 105–126. https://doi.org/10.1007/s10734-014-9828-8
Shen, W. (2005). A study on Chinese student migration in the United Kingdom. Asia Europe Journal, 3(3), 429–436. https://doi.org/10.1007/s10308-005-0011-9
Simon, H. A. (1957). Models of Man: Social and Rational. (p. 279). John Wiley And Sons Inc.
Sjaastad, L. A. (1962). The costs and returns of human migration. Journal of Political Economy, 70(5, Part 2), 80–93. https://doi.org/10.1086/258726
Sumell, A., Stephen, P. E., & Adams, J. D. (2009). Capturing knowledge: The location decision of new PhDs working in industry. In Science and engineering careers in the United States: An analysis of markets and employment. In The University of Chicago Press (pp. 257–287). The University of Chicago Press.
Tannock, S. (2013). When the demand for educational equality stops at the border: wealthy students, international students and the restructuring of higher education in the UK. Journal of Education Policy, 28(4), 449–464. https://doi.org/10.1080/02680939.2013.764577
Tremblay, K. (2005). Academic mobility and immigration. Journal of Studies in International Education, 9(3), 196–228. eric.ed.gov.
UIS. (2022a). Education: Outbound internationally mobile students by host region. Data.uis.unesco.org. http://data.uis.unesco.org/#
UIS. (2022b). Global flow of tertiary-level students. Unesco.org. http://uis.unesco.org/en/uis-student-flow
Van Mol, C., & Timmerman, C. (2014). Should I stay or should I go? An analysis of the determinants of Intra-European student mobility. Population, Space and Place, 20(5), 465–479. https://doi.org/10.1002/psp.1833
Wadhwa, V. (2009). A Reverse Brain Drain. Issues in Science and Technology, 25(3), 45–52. https://www.jstor.org/stable/43314945
Wu, C., & Wilkes, R. (2017). International students' post-graduation migration plans and the search for home. Geoforum, 80, 123–132. https://doi.org/10.1016/j.geoforum.2017.01.015

Wu, Q. (2014). Motivations and decision-making processes of Mainland Chinese students for undertaking Master's programs abroad. Journal of Studies in International Education, 18(5), 426–444. https://doi.org/10.1177/1028315313519823

Yang, X. (2011). Mobility strategies and trends: The case of China. In International Students and Global Mobility in Higher Education (pp. 25–41). Palgrave Macmillan. https://doi.org/https://doi.org/10.1057/9780230117143_2

Zhan, M. (2021). The post-study migration of EEA postgraduates: Who is remaining to work in the UK? Studies in Higher Education, 1–16. https://doi.org/10.1080/03075079.2021.1968366

Zhan, M., Downey, C., & Dyke, M. (2021). International postgraduate students' labour mobility in the United Kingdom: A cross-classified multilevel analysis. Population, Space and Place, 27(1), e2381. https://doi.org/10.1002/psp.2381