



Zhang, Jingjie (2023) *Students on the move - interregional migration aspirations of higher education institution graduate candidates in Central China*. PhD thesis.

<https://theses.gla.ac.uk/83833/>

Copyright and moral rights for this work are retained by the author

A copy can be downloaded for personal non-commercial research or study, without prior permission or charge

This work cannot be reproduced or quoted extensively from without first obtaining permission from the author

The content must not be changed in any way or sold commercially in any format or medium without the formal permission of the author

When referring to this work, full bibliographic details including the author, title, awarding institution and date of the thesis must be given

Enlighten: Theses

<https://theses.gla.ac.uk/>
research-enlighten@glasgow.ac.uk

**Students on the Move - Interregional Migration Aspirations of
Higher Education Institution Graduate Candidates in Central
China**

Jingjie Zhang

School of Education College of Social Science

University of Glasgow

This dissertation is submitted for the degree of

Doctor of Philosophy

Declaration

I hereby declare that except where specific reference is made to the work of others, the contents of this dissertation are original and have not been submitted in whole or in part for consideration for any other degree or qualification in this, or any other University. This dissertation is the result of my own work and includes nothing which is the outcome of work done in collaboration, except where specifically indicated in the text. This dissertation contains more than 70,000 words and less than 100,000 words including appendices, bibliography, footnotes, tables and equations and has less than 150 figures.

Jingjie Zhang

2022

Acknowledgement

First and foremost, I am really grateful to my supervisors, Dr. Kristinn Hermannsson, and Dr. Lesley Doyle. Both of my supervisors have provided me invaluable advice, and supported me throughout my PhD study. Even when I was badly bothered by depression and anxiety, my supervisors kept me company all the time and delighted my life with their patience. I would also thank my family, my parents, my friends especially Xiaose who has helped a lot on the data analysis skills. And my partner. Without their love and understanding, it would have been impossible for me to complete this study.

Abstract

China is an important and interesting case to examine for interregional migration research. The interregional migration of higher education institution graduates is high on the policy agenda because of concerns about brain drain from Central China to the Eastern coastal regions. For several decades specific policies have been enacted to retain graduates in the inland regions. Whilst the academic literature on migration is predominantly based on Western theoretical approaches, premised on a market-oriented context, Chinese higher education is still closely regulated by 'state-prescribed admission policies, quota and assignment systems' after China's 1978 reform and opening up campaign. For this reason, the characteristics of graduate migration within China are likely to diverge from patterns observed in previous research based in Western countries. A priori, therefore, it is unclear how well the established theoretical canon fits the case of China.

This mixed methods research has been designed and applied to understand the direction and drivers of the migration intentions/aspirations of prospective graduates in Central China. By combining a substantial survey (n=975) of final year undergraduates with structured interviews, this research has found that a chronological perspective on investigating potential migrants' decision-making process is important in the migration research field. Life experiences play an important role in the value shaping process of graduates, which forms the inner reasons for how students value different factors in the migration decision-making process. Also, the influence of latent factors (in this research, cultural and social aspects) has constrained or reinforced graduates' migration aspirations. Some elements of the special

Chinese context, such as the education system and economic geography, were also found to be important for Chinese graduates in multiple aspects. This research offers a new perspective on interregional migration research and reveals gaps that further investigation could help to fill.

Content page

Declaration 2

Acknowledgement..... 3

Abstract 4

Content page..... 6

Chapter 1 Introduction 1

 1.1 Main results and findings of the research 5

 1.2 Structure of the dissertation 6

Chapter 2 Literature review 8

 2.1 Introduction to empirical migration research..... 9

 2.2 Concepts of migration - the lenses of migration research 12

 Push-pull approach 13

 Equilibrium VS Disequilibrium model (a specific debate within the economic field)
 14

 Cost-return in migration 15

 Regional attractiveness 16

 Two-step approach 19

 2.3 Features and factors that affect migration flow and selectivity 20

 Individual and neighbourhood level 22

 Regional level..... 26

 2.4 Contextualising interregional graduate migration in the Chinese academic field . 29

 2.4.1 The brain drain situation in China 29

 2.4.2 Theories in Chinese migration research 39

 2.4.3 What is special in China? 42

 2.5 summary..... 47

Chapter 3 Methodology.....	50
3.1 Introduction.....	50
3.2 Rationale for mixed methods research Avoiding the limitations of dualism and methodological purism	54
3.3 Methods	57
3.3.1 Research design.....	57
3.3.2 Data Collection.....	62
Pilot stage – revising the survey and interview designs.....	62
Stage 1: Survey	67
Stage 2: Interview	68
3.3.3 Sampling.....	70
3.3.4 Geographical location/time period	74
3.3.5 Ethical considerations.....	75
3.3.6 Potential limitations.....	76
Chapter 4 Nature of Data	78
4.1 Data and data analysis.....	78
4.2 survey stage.....	82
Questionnaire design	82
Data	84
4.3 interview stage	89
Interview structure design	89
component of participants	91
Chapter 5 Where do graduates intend to go? What factors influenced their migration aspirations most?.....	95
5.1 Introduction.....	95
5.2 Descriptive analysis	97
Composition of respondents	97

General trends in the migration intentions of graduates.....	99
Demographic proxies	105
Family background and social class related factors	112
Summary of the descriptive results	126
5.3 Binary logistic regression	128
Stage1- what are the factors with the highest degree of effectiveness on whether students' outward migration	130
stage 2- individual characteristics and graduates' outward migration intentions	135
Stage3- How do graduates with different individual characteristic value factors that influenced their migration aspirations?	159
5.4 Summary	161
Chapter 6 How are migration ideas shaped? Viewing this dynamic process from a chronological perspective.....	163
6.1 introduction.....	163
6.1 - Before - Reasons for coming to study in Wuhan	166
6.1.1 "I hardly had any choices"	167
6.1.2 How should I choose? (Lack of information, life pursuit; parental will).	169
6.1.3 'My parents didn't allow me to...'	171
6.1.4 'I should go to a better place' (a compromise between ideal and reality).	175
6.2 University experience and changing ideas.....	178
6.2.1 Unmatched expectations.....	178
6.2.2 Rethinking decisions, changing plans	181
6.2.3 New experiences, information, and comparison between different places	185
6.2.4 Finding out what I really want (shaping of values).....	189
6.3 Facing graduation - Destination selection process	192
6.3.1 The pyramid of migration destination choices	194
6.3.2 Life-course related factors.....	198
6.4 Summary.....	错误!未定义书签。

6.5 Discussion.....	错误!未定义书签。
Chapter 7 How do latent factors influence graduate migration? The horizontal factors of all stages of migration	错误!未定义书签。
7.1 Introduction	201
7.2 Latent structural factors - Social class	203
7.2.1 Introduction	203
7.2.2 Social class differences in aspirations and expectations	205
7.2.3 The capability of moving	210
7.3 Cultural factors	216
7.3.1 Close to ‘家’ (Home) - strong family attachment and the traditional view behind it	216
‘...it’s about my own responsibilities or feelings towards my parents’	218
‘Go out if you can, go home if you can't’	220
7.3.2 ‘Girls are more inclined to go home’ - gender stereotypes and discrimination	222
‘...She is a girl! I think a boy may be better...’ - Gender stereotypes.....	223
‘It's more convenient for boys to get jobs.’ - Gender discrimination	225
7.4 Parental Influence	228
7.5 Summary	232
7.6 Discussion.....	237
Chapter 8 Discussion and conclusion	246
8.1 Introduction.....	246
8.2 Viewing migration aspirations from a chronological perspective	248
8.3 The influence of latent factors on graduate migration choices.....	255
8.4 The negotiation between family and economy and the new definition of return migration.....	258
8.5 The grey zone in the regional attractiveness pyramid	262

8.6 The special context of China that has a strong influence on graduate migration intentions.....	263
8.6.1 Discipline oriented migration intentions - an interaction between economic geography and the specifics of the education system in China.....	263
8.6.2 Eastwards migration and big-city oriented migration intentions - family background and the pursuit of a ‘better place’	267
8.7 Conclusion and limitations	273
Appendix.....	280
Appendix 1 Interviewee information.....	280
Appendix 2 Example of Interview transcript.....	287
Appendix 3 Questionnaire	310
Appendix 4 Table of variable	328
References	333

Chapter 1

Introduction

Young people tend to have higher levels of spatial mobility, which is linked to different life course events (Faggian et al., 2017a). Every year, millions of young people migrate from their parental home to where higher education institutions are located and from there to employment (Zhao and Hu, 2019). This migration behaviour is often associated with outcomes that are related not only to individual development and transition, but also, on a larger scale, to economic issues such as workforce relocation. In the academic research field, there is a growing number of studies which investigate this geographical mobility of young people in terms of its causes, factors, and consequences. Among all these young people, graduates from higher educational institutions are a specific group that concerns scholars. As Buchanan et al. (2017) argued, “expectations of higher education institutions (Higher Education Institutions) and their graduates have always been high. For centuries, universities have been the place where higher-order knowledge and skills have been developed, refined, and nurtured.” (p.201).

In China, the interregional migration of higher education institution graduates and the graduate retention programme has been on the agenda of regional development since a few decades ago, and is still a serious issue that concerns policy makers and scholars now (e.g.). When searching the keyword “Brain drain in China”, there are millions of results showing how young people migrate, especially from scholars of various disciplines interested in higher education institution graduate migration and solving the brain drain problems that the Chinese government faces. Chinese higher education is still closely regulated by “state-prescribed admission policies, quota and assignment systems” (Zhao and Hu, 2019, p. 2)

after China's 1978 reform and opening campaign. Influenced by multiple factors, Chinese regional development is relatively imbalanced, meanwhile, internal migration has a significant Eastward trend. More specifically, both the Western and Central regions have large numbers of outward labour migration. However, Central China has the most significant brain drain issue in China, since it has the largest number of Higher Education Institutions among all the four main regions in China (Western, Eastern, Central, North-Eastern). This outward migration of high-skilled workforce is related to a series of negative consequences for Central China, where the high investment in education does not receive a corresponding return. (Yue, 2011, Cai and Wang, 2003, Qi et al., 2017, He and Zhai, 2015, Hao, 2013, Peng, 2010)

Accordingly, the present study attempts to better understand the migration intentions of graduate candidates. With a mixed-methods research design, the researcher explores where the large number of graduates tend to go within China after they graduate from Higher Education Institutions in Central China, what motivates their migration intentions, and to understand their motivations through their decision making process and life experiences.

This research is aimed at answering two key questions:

The first is to investigate classic questions in migration research, which are about migration patterns and the factors that influence these patterns. The second is based on the experiences and interpretations of individuals, seeking answers through students' interpretations and understanding of their own and other's migration intentions, about the reasons behind their migration intentions.

In order to answer this question, the researcher applied mixed methods research, which included a survey and semi-structured interviews of 4th year students facing graduation in three key universities in Wuhan. Opting for fourth-year students as the research subject is both practical and justifiable. Firstly, at the time of data collection, these students were on

the verge of securing their first job (or had other definitive plans such as pursuing further education), positioning them in a state closest to that of graduates. Secondly, the targeted universities demonstrated reluctance in sharing datasets containing private information about students or providing official email contacts. This constraint hindered data collection efforts from graduates who had already undertaken migration.

Lastly, given that the initial objective was to examine aspirations, it became essential to concentrate on student perspectives before they graduated and engaged in actual migratory activities. This approach sought to circumvent potential post-hoc rationalization by capturing genuine pre-graduation sentiments.

The researcher applied bi-nominal logistic regression to the survey data in order to seek relationships between different factors, and find out whether or not students are aiming at moving outward after graduating from Higher Education Institutions in Wuhan. The researcher then used thematic analysis to investigate the qualitative data from the interviews to find out the reasons behind students' migration aspirations.

This dataset includes data from 975 valid respondents to the survey, and from 23 interviews. These first-hand data were collected in 2019. The reasons for choosing Wuhan are also quite clear:

1. Wuhan is a city with the largest number of Higher Education Institutions in Central China (84 higher education institution in 2017), and a large number of higher education institution students (1,913,212 in 2017)
2. Wuhan is the biggest city in Central China.
3. Central China's only art specific university is located in Wuhan.
4. From a practical point of view, the researcher has accumulated social capital in Wuhan, which had a positive influence on the data collection process.

The three key universities are three typical types of higher education institution in China. The first is Central China Normal University (CCNU), one of the most famous normal universities in China, with a large number of students majoring in the education field and with a large percentage of pre-service teachers¹. Second is the Wuhan University of Technology (WUT), which is close to CCNU and also a famous university, mainly focused on general science. Third is Hubei Institution of Fine Art (HIFA), which is the only art specific university in Central China.

The researcher applied stratified random sampling by randomly distributing the questionnaire to different schools in the three target universities. This process was realised by contacting the administrative offices of the three universities. Snowball sampling was then applied for more abundant respondents. By the end of the survey stage, the questionnaire was distributed to most of the schools and had respondents from 18 (out of 24) schools from CCNU, 14 (out of 25) schools from WUT, and 11 (out of 15) schools from HIFA. Using existing research and theories in the migration field, the researcher then selected 24 respondents from the survey, based on their characteristics. These respondents were contacted and asked to take part in the following research. The final number of participants in the interviews was 23.

The pilot study took place from December 2018 to January 2019. Based on the results of the pilot study, the researcher revised the survey and interview guide. The survey took place in March 2019, followed by semi-structured interviews.

1

1.1 Main results and findings of the research

Through empirical research, it has been suggested in this research that:

Firstly, it is necessary to view migration from a more chronological perspective, where an individual's life experiences have influenced their value shaping process. How students value different objective factors in different regions, and how they value cost and return in their migration intentions and when choosing their destinations, is also influenced by their previous life experiences.

Secondly, it is suggested to pay attention to the importance of latent factors and structural factors, that not only have a strong influence on students' value shaping process, but also restrict or expand their range of choices when choosing destinations for migration.

Thirdly, the researcher has found some gaps between existing studies and the current study, where the definition of return migration in economic geography studies has sometimes ignored individuals' motivations in migration behaviour.

Moreover, regional attractiveness theory also has a grey zone, containing locations that are not considered as potential destinations. Apart from the strong push factors in some locations, the reasons why some locations are not considered by migrants might also be because of a lack of information.

Fourthly, the researcher found special trends in the migration aspirations of higher education institution graduates in China. The disciplinary distribution of graduates might be related to the interaction between Chinese economic geography and the special education counterpart system. The researcher also found the influence of family background (and to some extent, therefore, social class) on students' Eastward and big city oriented migration aspirations.

1.2 Structure of the dissertation

In the following literature review (chapter 2), relevant research about interregional migration and literature about popular theories in the interregional migration research field will be introduced. Research about interregional migration, which includes graduate migration in China, will be reviewed subsequently. In this chapter, a great amount of evidence from previous research shows the crucial role that higher education institution graduates play in the labour market and the importance of investigating their migration behaviour from different perspectives.

In the methodology chapter (chapter 3), the rationale for designing mixed methods research will be carefully discussed through reviewing studies that have similarities to this research and use common methodology. In this chapter, research methods and methodology are explained first, the story about how this research design was shaped is presented second. This research was conducted in three stages: a pilot stage, a questionnaire stage and an interview stage. Therefore, the third part of this chapter will introduce each stage in terms of how it has been realised, and then how they are connected to each other. An example is how the research design was revised based on feedback from the pilot study, and the strategy adjustment during the interview stage in response to the difficulties of participant recruitment.

The fourth chapter presents the nature of data in this research, since the dataset of this research is first-hand data, and the form of the data is complicated. This chapter gives detailed information about the dataset that the researcher collected from three key universities in Central China, including a relatively large-scale survey and interview. In this chapter, the rationale for the questionnaire and survey question design, sampling technique, and information about survey data and interview participants are all presented.

The quantitative data analysis chapter (chapter 5) presents the results and analysis from the survey. Descriptive analysis gives a direct overview of the dataset, including the composition of respondents, the general trends in the migration intentions of graduates, then demographic characteristics, human capital related proxies, family background, and social class related factors that will be involved in the following analysis. Then, through binomial logistic regression, the researcher intends to answer a classification question about the influential factors that are related to whether or not students intend to outward migrate from their higher education institution location.

This is followed by the qualitative data analysis chapters (chapters 6). This chapter present findings from interpretative data analysis from interviewees, from two different perspectives. First is the necessity of viewing the migration decision-making process from a more chronological perspective, where life experiences have shaped students' values. Chapter 6 is structured by following a timeline (before university - during university - facing graduation) to explore students' stories and the reasons behind their migration aspirations, then analyses the reasons behind the reasons given by the interviewees, and explores how latent factors such as culture, parental influence and social class have encouraged or restrained students' migration aspirations in the first place.

The last chapter (chapter 7) discusses four key issues that are really interesting in this research, and further explores the gap between current studies and this research. The researcher then provides some new routes for further interregional migration research.

Chapter 2

Literature review

This literature review begins with an introduction to interregional migration research and an explanation of how the review is structured. Section 2 (Empirical findings from Western research) reviews Western empirical contributions in different contexts, and discusses how these empirical studies are centred around three core dimensions: migration patterns in different contexts, factors or determinants that influence migration behaviour, and consequences resulting from the migration phenomenon. Section 2 is, therefore, presented in three sub-sections: 2.1 interregional migration patterns, 2.2 influencing factors, and 2.3 consequences. Section 3 (Concepts of migration - the lenses of migration research) draws on the empirical studies discussed in Section 2 and reviews key literature to present an overview of core theoretical debates on interregional migration. It focuses on the debates which play a significant role in guiding empirical research in the field, and which are acknowledged as the most prevalent theories. They include equilibrium and disequilibrium models (developed to explain the interaction between regional differentials and migration flow); push-pull theory (commonly used to describe influencing factors related to region of origin and region of destination); and the regional attractiveness conceptual framework. Section 4 (Contextualised interregional graduate migration in the Chinese academic field) reviews studies related to the general brain drain situation in China (which is one of the most urgent concerns related to Central China's lack of efficiency), as well as recent studies related to graduate interregional migration. In section 5, the author will highlight the gaps in this research field in China, and introduce related policies that have been implemented in Central China to solve brain drain problems. Finally, in section 6, the author will clarify specific terms that appear in this research project.

2.1 Introduction to empirical migration research

The migration of individuals from one place to another has taken place since ancient times (Faggian et al., 2015). This ancient behaviour was pointed out by Campbell and Barone, (2012), ‘Recent findings in the fossil record make it clear that humans and their immediate ancestors have been migrating in one form or another since the origins of the genus *Homo*, almost 2 million years ago’ (p.45).

However, movement as a human behaviour at that time was different from modern times in many ways. At the beginning, the distance of movement tended to be short and the decision-making process was simple and instinctive. Initially, the motivation to migrate was centred around survival, in other words, to fulfil the basic needs of staying alive. However, with the development of human society and technology, both the patterns of, and motivations behind, migration behaviour have gradually changed. The effects of factors other than biological factors are stronger and more decisive now. Migration is no longer a process simply for survival purposes, but is also related to changes in social position in modern society, with a longer spatial distance and higher frequency (Faggian et al., 2015). These remarkable changes are closely correlated with both technological development in transportation, and economic globalisation. In this rapidly and dynamically developing context, the factors that predict mobility are changing, in terms of both the variety of factors (such as the existence of new factors including internet and social media) and the strength of impact of factors that already exist. For example, education, which was noted decades ago, has more and more influence on the mobility of individuals (Schwartz, 1976, Sjaastad, 1962). Research shows that this effect persists, and that individuals who have received higher education tend to

migrate more frequently than those who have relatively lower education levels (Hunt, 2004, Ciriaci, 2014, Buchanan et al., Faggian et al., 2015). Investigation of migration issues from different perspectives might lead to different results and conclusions. There is no doubt that this complex and gradually changing issue is of interest, and it has been discussed and investigated over decades by researchers from various disciplines such as economics, geography, education, politics, sociology, etc.

The attempt to find out who is migrating, why they migrate, what leads to their migration, how they migrate, and what happens after they migrate has never stopped, both in the international and interregional migration fields. Over the years, a large number of scholars have had discussions and arguments around the conceptual framework of migration. In the regional social science research field in particular, migration is argued to be a “core competency” (Franklin and Plane, 2006, Faggian et al., 2017b), in that most research around employment, workforce flow or industrial change in a region is highly reliant on migration data. Although the boundary between international migration and interregional migration is sometimes blurred due to changeable measurements of destination, these two migration types still have distinct differences. As Faggian et al. (2015) pointed out, interregional migration data - rather than international migration data - is especially significant in regional social science studies. This is partly due to distance but, perhaps more importantly, because the migration behaviour between these two types is different in nature. For instance, it has been suggested by researchers that the destination choices made by immigrants and domestic migrants in the US are significantly different (Guinness, 2002). Domestic migrants congregate in metropolitan areas while immigrants are relatively fewer in these regions and further down the urban hierarchy, according to Census data from the 1990s. Generally, international migration and interregional migration have different patterns. This can be considered as a reason why regional scientists tend to investigate interregional migration rather than international migration.

At the same time, with economic globalisation and the development of knowledge based societies, it has become an accepted truth that employers need a workforce with high human capital. With the human capital approach, a considerable number of empirical studies have been published on the relationship between education level (an important indicator of human capital) and spatial mobility - and suggest a positive coefficient. This means that people who have received a higher level of education tend to migrate to different places than those with lower education levels, and their migration patterns show significant differences in some ways (Faggian et al., 2007a, Hunt, 2004, DaVanzo, 1983). The increased demand for workforces with high human capital, and its relationship to regional development, led to a renewed interest in the migration of those who have received higher education. Investigations into the migration of higher education institution (higher education institution) graduates have risen alongside more general investigations into the migration of workforces with high human capital. The interregional migration issues of highly skilled workforces has gradually become one of the most significant topics in the modern social science research field since the 1990s.

From an economic geography perspective, more researchers have been putting their focus on the relationship between regional imbalance and migration. Migration has become one of the most important indicators, and sources, of regional imbalance. Adverse regional and national economic circumstances may stimulate spatial mobility (Venhorst et al., 2011). The regional imbalance within a country might influence the patterns of internal migration, for example, South/North England (Hoare and Corver, 2010, Fielding, 1992), North/South Italy (Biagi et al., 2011) etc.

From a political perspective, policy awareness of the results and consequences that interregional migration might bring (e.g. brain drain, increased/diminished regional labour productivity/innovation levels, etc. (Faggian et al., 2017b)) has increased. On the other hand,

there is also growing academic interest in understanding, in detail, what drives this migration. In other words, what the factors behind interregional migration patterns are, or the different reasons behind individuals' (or certain groups of individuals') migration behaviour.

The same tendency also appears in China. Being influenced by imbalanced development within a country, the massive population of migrating graduates makes this issue more obvious and serious. There is a large amount of Chinese literature that discusses the migration patterns of young graduates in China, and shows the need to avoid a Central China brain drain. Although brain drain is a complex problem - and solving it needs developments in productivity and collaboration with political, economic and cultural elements of both Central China and China as a whole - the main component of highly skilled interregional migration (higher education institution students) is a key component worthy of in-depth research. There is a particular lack of such research looking at the perspectives of migrants themselves and how they interpret the influences on their decisions.

2.2 Concepts of migration - the lenses of migration research

This section is a brief review of the lenses of migration research, and the theoretical framework that has been applied to this research. Migration research is a cross-disciplinary research field, where a wide range of theories from fields such as economics, sociology, ethnography, and geography are involved. Since this research is aimed at approaching higher education institution students' migration aspirations from a more comprehensive perspective than those offered by equilibrium and disequilibrium models, push-pull theories, and cost-return theories, the researcher will also examine regional attractiveness theory, and the two-step approach. In this section, the rationale for selecting certain theories as the lens for

investigating graduate migration aspirations in Central China in this research will be introduced, along with a review of different theories in the migration research field.

Push-pull approach

As one of the most commonly mentioned perspectives in the migration research field and one of the earliest theories in explaining labour migration, the researcher considers push-pull theory to be the best starting point for this chapter. (Benjamin and Bogue, 1969) presented push-pull theory and indicated that migration as an action is motivated by the 'desire to satisfy needs or to avoid discomfort or pain.' (p.753) Migration to a new community is either a response to some 'impelling needs' (p.753) that the person believes cannot be satisfied in the original domicile, or for some reason the original residence has become undesirable, unpleasant or intolerable. These factors are categorised into 'push' factors from the original residence such as 'decline in a national resource', 'loss of employment', 'oppressive or repressive discrimination', 'alienation of a community', 'lack of opportunities for personal development', etc. "Pull" factors include higher income, better opportunities, better living conditions, dependent movement (e.g. marriage, joining a new family), etc. Push-pull theory emphasises that migration is influenced by these forces from both directions, and both 'push' and 'pull' forces work at the same time.

As one of the most general lenses in migration research, the push-pull approach enables researchers to understand labour migration as a process not only related to selection, but also related to the costs and benefits of a behaviour. This helps us understand migration motivations and migration aspirations in a better way.

Equilibrium VS Disequilibrium model (a specific debate within the economic field)

Interregional migration research is usually approached by drawing on equilibrium and disequilibrium models (Hunt, 1993). These approaches need to be distinguished from debates about whether or not jobs or amenities motivate individual or household migration between regions. The debate between the proponents of equilibrium and disequilibrium models is closer to a debate between two concepts of how the system underpinning migration works.

(Hicks, 1932) hypothesised that the main causes of migration were differences in net economic advantages and differences in wages. He claimed in *The Theory of Wages*, that “the attraction of high wage rates will set in motion a gradual flow of labour from less active to more active centres of trade” (p. 73). This idea has led to discussions by researchers of regional migration about whether it is a reaction to regional economic differences and a result of the job hunting process which began in the 1970s. More specifically, the idea is that the migration of individuals will happen when there are disparities between two locations in terms of wages and employment, and there will be a flow of individuals from low-wage regions to high-wage regions, accompanied by a relocation of workforce and capital (Faggian et al., 2015). This spatial movement of a workforce will ultimately fill in the gap between two regions and result in a new set of *equilibrium conditions*.

In contrast, the *disequilibrium model*, which was shaped in the 1970s and then promoted (Graves, 1980), considers regional disparities (e.g. income level and opportunities of employment, etc.) as the dominating factor. Migration, therefore, is expected to “respond to such differentials net of relevant costs” (p.341). In other words, the system was viewed as being initially out of equilibrium, and any adjustments in this system were assumed to equilibrate the system (Greenwood and Hunt, 1989).

Although intuitively plausible, the disequilibrium model has come under criticism for being overly simplistic and not providing a good empirical fit. Empirical studies are not sufficient to explain or support the disequilibrium approach, so scholars proposed another model - called the equilibrium model - which sought to “emphasize the role that amenity differentials play in migration” (Hunt, 1993, p. 342). The dynamic balance between different regions means that economic differences are not the determinant in motivating human migration. From an equilibrium perspective, the disparity of economic aspects such as wages can be compensated for naturally, since high wages and income level are accompanied by poorer amenities to some extent. Therefore, this model usually emphasises the actual benefits, which are considered to be the intrinsic motivation to change a migrant’s (or potential migrant’s) current situation, rather than spatial economic or opportunity differentials (Hunt, 1993).

Cost-return in migration

Taking these shortcomings into consideration, equilibrium approaches and disequilibrium approaches are actually seen as complementary to each other these days. Some scholars tried to find a unifying theory that can reconcile these two approaches and complement their deficiencies. For example, contemplating micro-level determinants of human migration, the “cost and return theory”, which is related to extended human capital migration theory (Sjaastad, 1962), was suggested. (Sjaastad, 1962) tried to find out how migrants responded to economic differentials between regions in the USA. He held the same disequilibrium perception, however he also doubted that labour migration would equilibrate income disparities among regions. In order to react to this finding, Sjaastad (1962) applied the concept of investment in migration behaviour. He tried to figure out “the return of investment in migration” that migrants expected from migration behaviour, and how that related to income differences between regions. This model subtly gets around the conflicting

macro-level assumptions about equilibrium or disequilibrium between regions, and assumes that human migration will happen if “the net present value of a migration investment is positive” (Faggian et al., 2015, p. 470). This investment and return can be both material and immaterial, depending on how individuals value these variables in their migration process.

This cost related to relocation does not simply refer to material consumption such as travel costs, but also incorporates opportunity costs, “psychic cost” (Sjaastad, 1962) - such as leaving familiar places and living far away from friends and relatives, and other intangible costs. The weight of these factors in the migration process varies among individuals and households, and this is something that is integral to the theories surrounding migration. This is based on the purpose of ‘maximizing lifetime utility at different life stages’ (Zhao and Hu, 2019, p. 2), where the migration from education to work is usually considered an investment of human capital, with consequently enhanced human capital through economic return. Positive expectations of the consequences of migration related to migration behaviour, and vice versa.

The interest in investigating features and characteristics of migrants, and how these factors are valued, is gradually increasing as researchers seek to better understand the phenomenon.

The following sections will also look at alternative reconciliation for the conflicts in the equilibrium and disequilibrium models, looking at the migration phenomenon from another perspective.

Regional attractiveness

To further explore the ability of a region to attract migrants, the process of migration decision making, the motivation for selecting a specific place as a destination, and the relationship between different regional characteristics and people’s migration behaviour, (Niedomysl, 2010) suggested the ‘regional attractiveness pyramid’.

The pyramid that (Niedomysl, 2010) suggested in his research manifests the relationship between regional attractiveness and the individual value judgements of migrants. This pyramid with three tiers is similar to Maslow's Needs-Hierarchy Theory (Maslow, 1943).

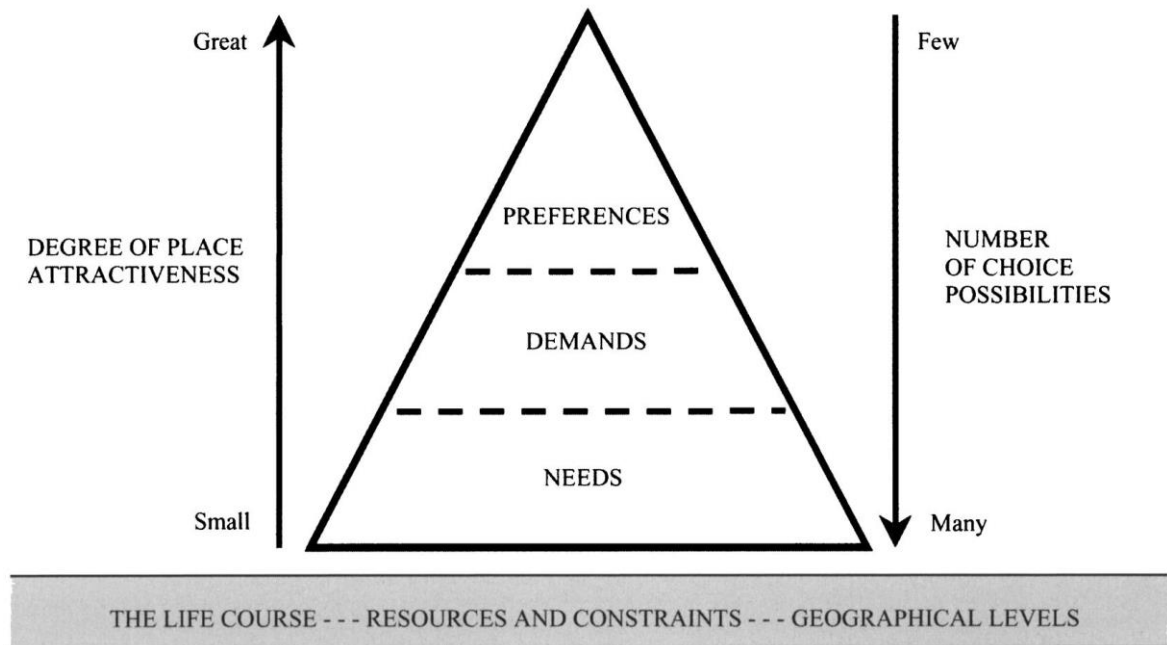


Figure 2.2.1. Regional Attractiveness Pyramid.

Credit: (Niedomysl, 2010)

As Maslow stated in his Theory of Human Motivation, ‘Any motivated behavior, either preparatory or consummatory, must be understood to be a channel through which many basic needs may be simultaneously expressed or satisfied. Typically, an act has more than one motivation... Human needs arrange themselves in hierarchies of prepotency. That is to say, the appearance of one need usually rests on the prior satisfaction of another, more pre-potent need.’ (Maslow, 1943, pp. 369-370) The hierarchy of needs includes five layers, from bottom to top: physiological needs, safety needs, love and belonging needs, esteem needs, self-actualisation needs. Motivation, from simple to sophisticated, from low to high, is related to the extent in which needs will be fulfilled. Similarly, in the regional attractiveness framework, the pyramid represents the hierarchy of factors in motivating migrants’ destination choices.

- Needs - refers to the most fundamental criteria for voluntary migration, the largest range of migration choices (broader than the basic human needs).
- Demand – demands are understood in the framework as factors that must be fulfilled for migration to take place but are not necessary for survival, what people usually regard as their main, or most important, migration motive (primary driver of selecting a destination).
- Preference - What people usually regard as “that something special”, but could nevertheless be compromised on (fewest number of choices).

‘The greater the extent to which a place may fulfil the needs, demands and preferences of a migrant, the greater the attractiveness of such a place. At the same time, however, when the degree of place attractiveness increases due to the successive fulfilment of these three factors, the number of choice possibilities decrease’ (p.102)

However, different to the Needs-Hierarchy Theory, which clearly separates the layers of needs in terms of the goals of behaviour (or in other words, functions, effects, purposes of a behaviour), the lines between ‘needs’, ‘demands’ and ‘preferences’ in this framework are relatively blurred and dynamic. The dynamic definitions of the three layers in the pyramid are also highly influenced by factors such as geographical levels, different resources and constraints for different migrants, and life-course related factors. In this research, this theory has been considered a great perspective in understanding the process of migration destination choices.

Two-step approach

The two-step approach suggested by Carling and Schewel (2018) is applied in this research as an important theory for understanding the motivations behind the migration behaviour of graduates. This theory also gave a rationale for investigating migration aspirations. In this approach, Carling and Schewel viewed migration behaviour from a psychological perspective, with a 'break-up of migration into two separate steps: the evaluation of migration as a potential course of action and the realisation of actual mobility or immobility at a given moment.' (p.947) Voluntary migration behaviour will only happen when migrants have migration aspirations and have migration capability.

The two-step approach suggested the theorising of migration aspirations into three conceptualisations that intersect with each other.

First is classically viewing migration aspirations as a comparison between places. Whether to migrate to a place or not depends on the result of a comparison of regional characteristics in different places, and the value of these factors is driven by one's demands and preferences. This concept is similar to classic mainstream theories such as push-pull theory, though the potential destinations present through 'local existing ideas and meaning attached to these places' (p.953) This process happens in every participant in this research, as we discussed in previous chapters.

Secondly, it has been suggested that it might be possible to see migration aspirations as a comparison of culturally-defined projects. The researchers suggested that 'people's notion of migration is often based on a "migration project", a socially constructed entity that embodies particular expectations.' (p.954) The meanings that are attached to places and which produce the 'migration project' should not be ignored, and migration should not be simplified and interpreted only as a comparison between places based on preference, when cultural-defined projects take an important place.

Carling and Schwell (2018) elucidate the distinction between migration aspirations and migration intentions in their research. It needs to be noted that the authors delineate two distinct concepts related to the decision-making process of individuals seeking to migrate: migration intention and migration aspiration. The term migration intention is employed to describe a person's well-defined and actionable plan to relocate to another geographical area, considering the various factors and resources necessary to facilitate such a move. Conversely, migration aspiration refers to an individual's abstract longing or ambition to migrate, which may not necessarily be accompanied by a concrete strategy or the means to undertake the journey. This distinction emphasizes the multifaceted nature of migration decision-making and the importance of understanding the nuances between aspirations and intentions in migration studies.

2.3 Features and factors that affect migration flow and selectivity

The mainstream of interregional migration research is dominated by Western economic and sociological theories, which appeared a few decades before Chinese researchers started to systematically research this issue. Chinese research usually follows existing Western research, therefore, it is necessary to systematically review empirical findings from Western research first.

This literature review begins with an investigation of the empirical evidence from Western countries. It is presented in three sections: patterns of migration in different countries, features and determinants of migration, and consequences of migration.

Generally speaking, researchers investigating issues related to interregional migration have addressed one or more of these key questions, as Greenwood (1997):

a) “Who migrates?”: Features such as gender, age, marital status, ethnicity have been extensively investigated.

b) “Why do people migrate?” (Ballweg and Li, 1992): Answering this question is both common and significant in the migration research field, and it is usually related to the determinants of migration, and how these determinants work in the migration process.

c) “Where do people come from and where do they go?”: This question not only led to detailed investigations of spatial patterns of migration flow, but also how characteristics of different regions have influenced that flow.

d) “When do they migrate?”: This question has also attracted many researchers and is not simply an extension of the above questions. When migration is considered as a group behaviour, and looked at in a wider historical context, the cohort effect that is triggered by certain national conditions in certain eras is of interest to scholars.

e) “What happens after they migrate?”: This refers to the consequences of migration, and researchers usually analyse these consequences in the following categories: consequences for individuals, consequences for original region, destination region, nationally and the overall system. (Faggian et al., 2017b)

Simply speaking, empirical studies about interregional migration are centred around three core topics: migration patterns in different contexts; factors or determinants that influence migration behaviour; and consequences resulting from the migration phenomenon. Even where research has been carried out around different migration theories, the essential purposes are similar, so in this section, the author will classify empirical studies from Western countries, and offer a critical analysis of how researchers have been answering questions related to these different dimensions of the migration issue.

As mentioned in previous sections, human migration behaviour happens because of differences between regions, but these differences lie not only in economic characteristics, but also in general “quality of life” (Faggian et al., 2015, p. 471). However, the influence that regional differences can have on an individual’s migration behaviour is undeniably related to their own features on an individual level. For example, in modern society, people with higher education levels tend to migrate more than those with relatively lower levels (Hunt, 2004, Faggian et al., 2007a, Faggian and McCann, 2009b, Ciriaci, 2014), and regions with low unemployment rates will have less influence on migrants with higher education levels compared with those with lower education levels. Low local unemployment rates will have a stronger influence on migrants with lower education levels than those with higher education levels. (DaVanzo, 1978).

Features such as gender, age, and ethnicity show strong explanatory power in pattern differentials between different subgroups of migrants (Kröhnert and Vollmer, 2012, Fielding and Halford, 1993, Robinson, 1993, Faggian et al., 2007b). The following factors are the most commonly investigated factors that appear in most empirical studies. These factors sometimes overlap and interact with each other. This section aims to provide an overall review of empirical evidence for factors that are generally considered to be influential on migration. These factors are also considered to be essential in this research.

Individual and neighbourhood level

The key issue in this research is to investigate graduates from Higher Education Institutions, therefore, in this section, only education level, gender and previous migration experiences will be mentioned. The age factor that is empirically proven to be influential in migration will not be considered (as the majority of 4th year higher education institution students are the same age).

Education (including discipline and education level etc.)

In existing studies, education is one of the most uncontroversial factors that usually shows a positive relationship with migration abilities and prospects. One of the earliest findings was suggested by Sjaastad, (1962), stating that migrants move from lower income regions to higher income regions, and this flow increases with education (Schwartz, 1976). This finding is quite common in economic studies since human capital theory is commonly involved in these studies. (Hunt, 2004) found that, generally speaking, migrants were more skilled and had higher education levels. Individuals who received vocational training were 0.2% more likely to migrate on average, while the rate for those who received tertiary education was 1.2%. In total, those who had educational qualifications were 0.27% more likely to migrate. Similar results have been indicated by other researchers (Faggian et al., 2006, Faggian et al., 2007a, Schwartz, 1976), since “education is the most easily measured form of human capital” (Faggian et al., 2007a, p. 211).

Furthermore, education factors can be subdivided, and aspects other than simple education level also have significant influence on interregional migration. For instance, the quality of higher education in terms of both research and teaching quality are “fundamental explanatory variables” in the migration choices of the youngest and most skilled part of the Italian labour force.(Ciriaci, 2014)

The efficiency of education variables in migration has been explained in several ways:

First, from the perspective of education receivers themselves, the higher the level of education an individual has received, the more targeted and selective in job searching they will be. As Schwartz (1976) claimed, the job search area expands with education - education is an investment which seeks return in higher wages and more desirable jobs, and this expands geographical job search range. In order to find their ideal jobs, individuals with higher education levels tend to migrate both inter-regionally and internationally.

Second, looking at the relationship between education and information cost, the ability to migrate is highly related to the information that individuals can get and the cost of getting this information. On the one hand, education offers a platform that increases essential information about opportunities directly, as well as increasing the ability to obtain high quality information; on the other hand, it reduces the cost of obtaining this information for education attendance (Sjaastad, 1962, DaVanzo, 1983).

Third, education is highly related to sequential migration behaviour (Faggian and McCann, 2009b). The repeat migration pattern and its factors will be discussed later in the “previous migration experience” section (DaVanzo, 1983, DaVanzo, 1981).

Gender

(Faggian et al., 2015) reviewed that gender is a determinant that has been disregarded by a large percentage of migration researchers, with some of these studies only taking males into account, potentially leading to unilateral conclusions. (Monk and Hanson, 1982) pointed out the “inadequate specification of research problems”, saying that even when research questions involve gender disparity, they are usually analysed in terms of male experience due to common assumptions about females - “gender-blind theory”, “the assumption of traditional gender roles”, “avoidance of research themes that directly address women’s lives” and “dismissing the significance of gender or women’s activities” (pp.14-19) - as well as relevant research methods and purpose "excluding half the human in human geography" (Robinson, 1993, p. 1453). For example, in the interregional migration research of (Lycan, 1975), the measure of education refers to males. Some studies found it difficult to find adequate census data about female migration (Poulsen et al., 1975).

Although gender disparity in migration behaviour is more commonly discussed by researchers now, it seems the influence of this factor varies between countries. Traditionally, males show high migration both internally or internationally, while females are less

responsive to 'economic opportunities' and have less propensity to migrate (Rogers, 1967). But this opinion has its own scope of application, and has been proven to diverge in different contexts.

(Dumont et al., 2007) indicated that "female migration to OECD countries has been increasing significantly in recent decades, so that migrant stocks are now more or less gender-balanced" (p.21), and he claimed that the gender dimension of brain drain should be considered a core issue. (Faggian et al., 2007b) researched sequential migration behaviour of graduates from domicile to Higher Education Institutions and then from Higher Education Institutions to employment, and found that "women are generally more inter-regionally mobile than men, even when we control for differences in human capital acquisition (human capital acquisition and regional economic conditions)" (p.518). (Schneider and Kubis, 2010) pointed out that regional wage levels and educational institutions tend to be more influential factors for women than men, which might lead to higher female migration. In India, two thirds of internal migration flow is female (Gosal and Krishan, 1975); similarly, (Robinson, 1993) researched interregional migration in England and Wales, and claimed that gender might significantly influence migration propensity and reward. In this research, women are more migratory than males, but with controlling racial variations - Pakistanis show that males are more mobile than females, while Indian females show a higher proportion of migration. In China, male college graduates are significantly more migratory than female graduates - there was about 11% difference in migrations rates in 2013 (Yue, 2014).

Gender differentials in migration patterns are also influenced by other factors such as culture, religion, policy, marital status, and social status of females. They cannot, therefore, simply be reduced to an individual factor, and need to be researched further.

Previous migration experience

(Morrison, 1971) investigated chronic migration in the USA, and found that the reasons behind this repeat migration were both psychological and economic. From a psychological perspective, individuals who have moved multiple times in their life, and people who are less tied down by social relationships in their original domicile (which is also connected with multiple migration) will less likely be influenced by fear of moving. From an economic perspective, the cost of gathering useful information about moving is lower for chronic migrants, and these individuals will have more experience in migration. As for information cost, (DaVanzo, 1983) also suggested that repeat migrants can more easily get reliable information, since they are closer to their destinations.

A closer empirical study about graduate migration was conducted by Faggian et al. (2006). It was found that graduates who have previous migration experiences are more likely to search for a job after graduation. In addition, among students who migrate after graduation, the majority tend to outward migrate and not to return to their original domicile. Return migrants, as Faggian described, are the 'least successful graduates (in terms of final grade obtained), which seems to imply that return migration is often a 'corrective' movement rather than a deliberate choice.' (Faggian et al., 2015, p. 479)

Regional level

Economic related factors such as job opportunities, wage levels and unemployment, etc.

Economic factors are the most discussed factors when investigating migration, since these factors cannot be ignored in all the stages of migration. It is included in all of the theories mentioned above. As reviewed by Faggian et al. (2015), among regional level economic factors, unemployment and wages are considered classic factors related to migration.

Firstly, as suggested by researchers, unemployment clearly acts as a strong 'push' factor for migrants on an individual level. Being unemployed increases the probability of migration

(DaVanzo, 1978). Unemployment pushes people to widen their geographical range when searching for jobs. From a disequilibrium perspective, people tend to move to regions with lower unemployment rates, while the equilibrium model argues that the unemployment rate might already be compensated for by higher quality of living (environment and amenities, etc.). There are also researchers who suggested that regional unemployment rates work differently to personal unemployment situations in terms of migration probability (Owen, 1992). Some researchers have found that unemployment rates work differently in different countries (Dijk et al., 1989). (Jackman and Savouri, 1992) suggested that the unemployment rate in the region of origin increases migration probability, while the unemployment rate in destinations works in the opposite manner. There are also researchers who argue that unemployment rates do not necessarily represent a 'cyclically weak economy' (Faggian et al., 2015, p. 481). In general, the influence of unemployment on migration still remains inconclusive.

One of the first migration studies that included wages is the Lowry (1966) gravity-type model, however the insignificant result of the wage related variable leads to the conclusion that wage is not an influential factor in migration. Contrary to this, studies such as Thomas (1993), found that wage level is significant in explaining migration probabilities, and also that labour market characteristics significantly influence people's migration location choices. However, unexpectedly, Westerlund (1997) and Millington (2000) found that destination real salary has an apparent repellent effect on in-migration for all age groups.

According to a more recent study by Gabriel and Rosenthal (2004), based on the equilibrium model, if '(1) local prices fully account for amenities, (2) migration is nearly costless, and (3) the system is in equilibrium, then the household valuation of amenities for a particular location can be measured by the area's quality-adjusted local cost of living (say for housing characteristics) minus the nominal wage (both benchmarked to some measure such as

average national wages).’ (p.482) The equilibrium model actually shows the importance of not viewing economic factors alone but taking the ‘amenities- adjusted real wage’ (p.482) into consideration. (Faggian et al., 2015)

Living environment and artificial amenities

The equilibrium model gives a brand-new perspective on migration research, and in investigating how compensatory factors such as living environment and artificial amenities influence migration flow. For example, (Graves, 1980) found that ‘differences in income and unemployment across cities reflect not real utility differentials... but rather the compensation required for spatial indifference in a world with constantly changing demands for location-fixed goods, primarily climate’ (p.236)

Recently, there has been a growing number of studies discussing whether economy or amenities is more effective in explaining migration. For example, (Niedomysl et al., 2010) analysed information about how important several factors were for the migration of 10,000 Swedes who had moved further than 20km during 2006. This research found that work opportunities were ‘of critical importance for migrants in their decision making which is evidenced by the greater emphasis put on this factor in relation to the other factors’ (p.1645), while amenities were less influential in the migration decision-making process. However, compared to less educated migrants, highly educated migrants tend to put relatively more emphasis on cultural and entertainment facilities.

Apart from results from similarly structured surveys, some literature pays greater attention to other differences such as social capital, environmental characteristics, amenities and other life-quality related factors, even the internet. (e.g. (Hotchkiss and Rupasingha, 2018, Vilhelmson and Thulin, 2013, Vilhelmson and Thulin, 2016)

If investigating the meanings and reasons as interpreted by migrants, the results turn out to be different from conclusions from numerical data analysis. For example, qualitative research by Vilhelmson and Thulin (2016), analysed empirical data from interviews with urban young adults in Sweden. They found that the broad term ‘environment’ actually had an important meaning in migration for these young adults in Sweden, with the meaning of physical landscape, social environment or services and facilities related to living quality. The researchers also suggested that these factors are not necessarily of secondary importance in migration motives.

2.4 Contextualising interregional graduate migration in the Chinese academic field

2.4.1 The brain drain situation in China

From a general examination of the research about interregional migration in the context of China, it is easy to see that both the amount of literature and the aspects of investigation are limited. Study around this issue tends to be based on previous research in the context of developed countries (such as a series of studies done by Faggian and McCann (2008)), consistent with methodologies that have been used in previous studies, and based on theories that have been indicated to be valuable to research in this field.

Due to insufficient research on the Chinese context and the complexity of investigating this issue in such a vast country with special development conditions, the organising of existing literature - a systematic literature review - seems to be essential. In order to figure out the current situation of interregional graduate migration in China, to give a foundation for

subsequent research, and to contribute to the study of interregional migration in developing countries, it is important to review related literature in China.

In recent years, there has been an increasing amount of literature on interregional migration in the context of China. In the last few decades, researchers have mostly focused on migration patterns, determinants, and modelling interregional migration (Fan, 2005, Liang and White, 1996, Cai and Wang, 2003). With changes in the economic, political and cultural situation in China, research topics have also come to include different aspects of migration: rural migration flow (Zhao, 1999, Li, 1996, Qi and Niu, 2013), urbanisation influenced by interregional migration (Cai and Wang, 2008, Zhao, 1999, Kochan, 2009), etc. With the shift in the Chinese Central Government's developmental focus, the general environment of interregional migration has gradually changed.

Recently, researchers have shown an increased interest in what is generally called high-tech intellectual resources, which can be considered as the most significant units of a knowledge-based economy. A great amount of published studies focus on the migration of skilled people (Liu and Shen, 2014, Liu and Shen, 2017, Shen and Liu, 2016), graduates from higher educational institutions (Liu et al., 2017, Yue, 2011, Yue, 2012, Yue and Li, 2016), and the structural factors that influence their migration behaviour. These studies, which are usually based on a positivistic paradigm, have clearly shown what is called "the average preference" of these specific migration flows, and have made contributions to more precisely predicting the general interregional migration trends of the skilled workforce in China. This is exactly what policy makers are looking for, in order to equilibrate regional development by the implementation of policies based on existing empirical studies. Maintaining graduates from Higher Education Institutions in less developed regions such as Western China and Central China, or even encouraging graduates from more developed regions to search for their first

employment in these regions, is a concern of both the Central and provincial governments, as it is part of finding a solution for regional differentials.

The following map has shown Chinese economical geography in China.

Central China (simplified Chinese: 华中; traditional Chinese: 華中; pinyin: Huázhōng; lit. 'Huaxia-middle') is a geographical and a loosely defined cultural region that includes the provinces of Henan, Hubei and Hunan. Jiangxi is also regarded to be part of this region. In the context of the Rise of Central China Plan by the State Council of the People's Republic of China in 2004, surrounding provinces including Shanxi, Anhui, are also defined as regions of Central China development zones (Green part in the map)

Figure 2.4.1. Map of Western, North-Eastern, Eastern and Central China



This political concern is based on the background of a long lasting brain drain in less developed regions in China. Since the Chinese government relaxed the long-standing restricted migration policy between regions in the late 1970s, the migration of populations in China started to show reversal patterns compared to the pre-reform period (before late 1970s). In the 1982-1987 period, the total number of inter-provincial migrants was 6.24 million (excluding Tibet), and most of them outward-migrated from the interior provinces (synonymous with Western and Central China* (National Bureau of Statistics of China, 2011)) to the Eastern coastal region (He, 2002, Fan, 1996). Even now, this Eastward migration is still a general trend. Referring to the chord diagram plot (see below) that visualises inter-provincial migration flows in 31 provinces in China from 2010-2015 (Qi et al., 2017), the major trend of migration within China has not changed dramatically in the last few decades, with the interior regions still facing a considerable amount of outward migration in the context of rapid urbanisation after economic reforms.

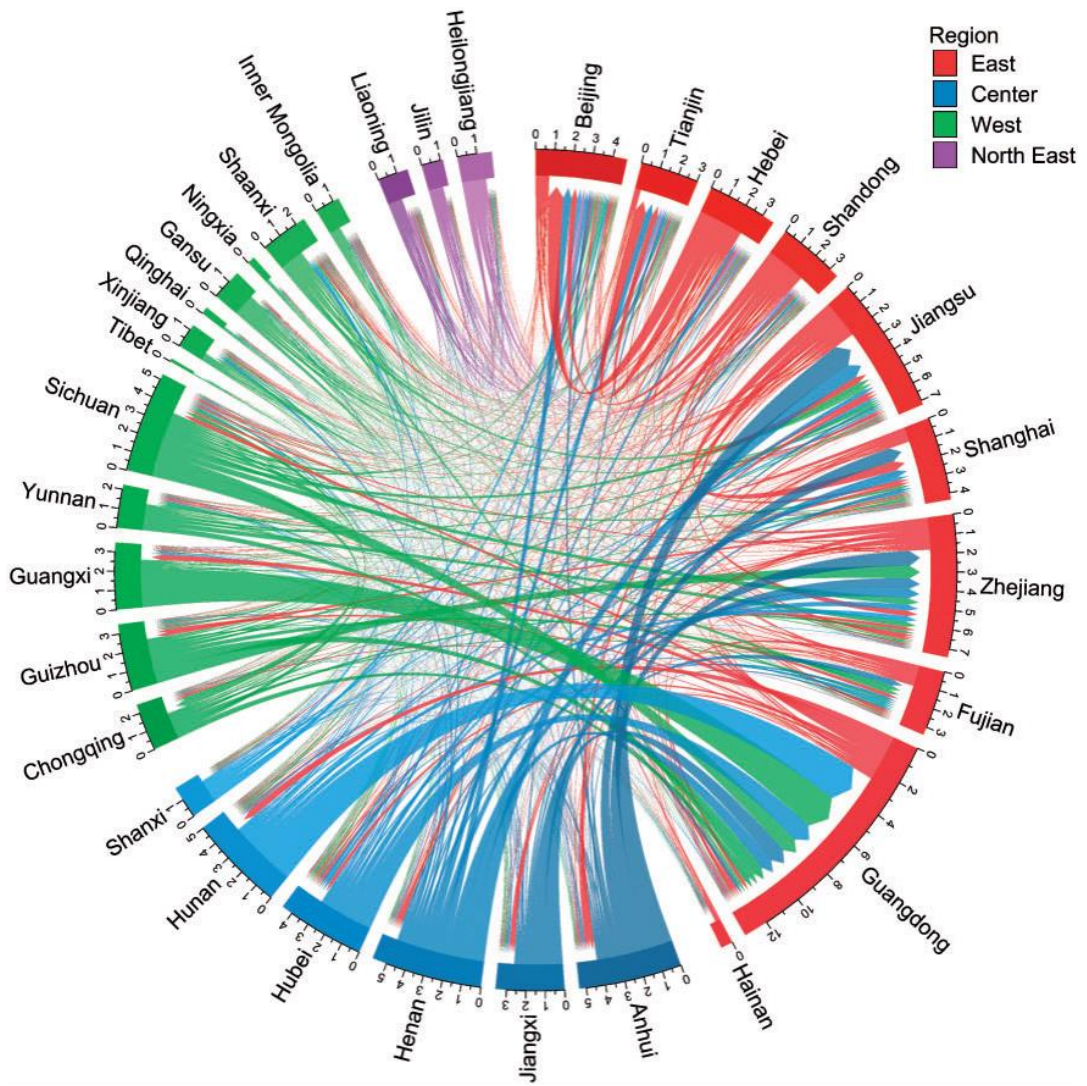


Figure 2.4.2. Bilateral migration flows during 2010–2015 in China (unit: million).

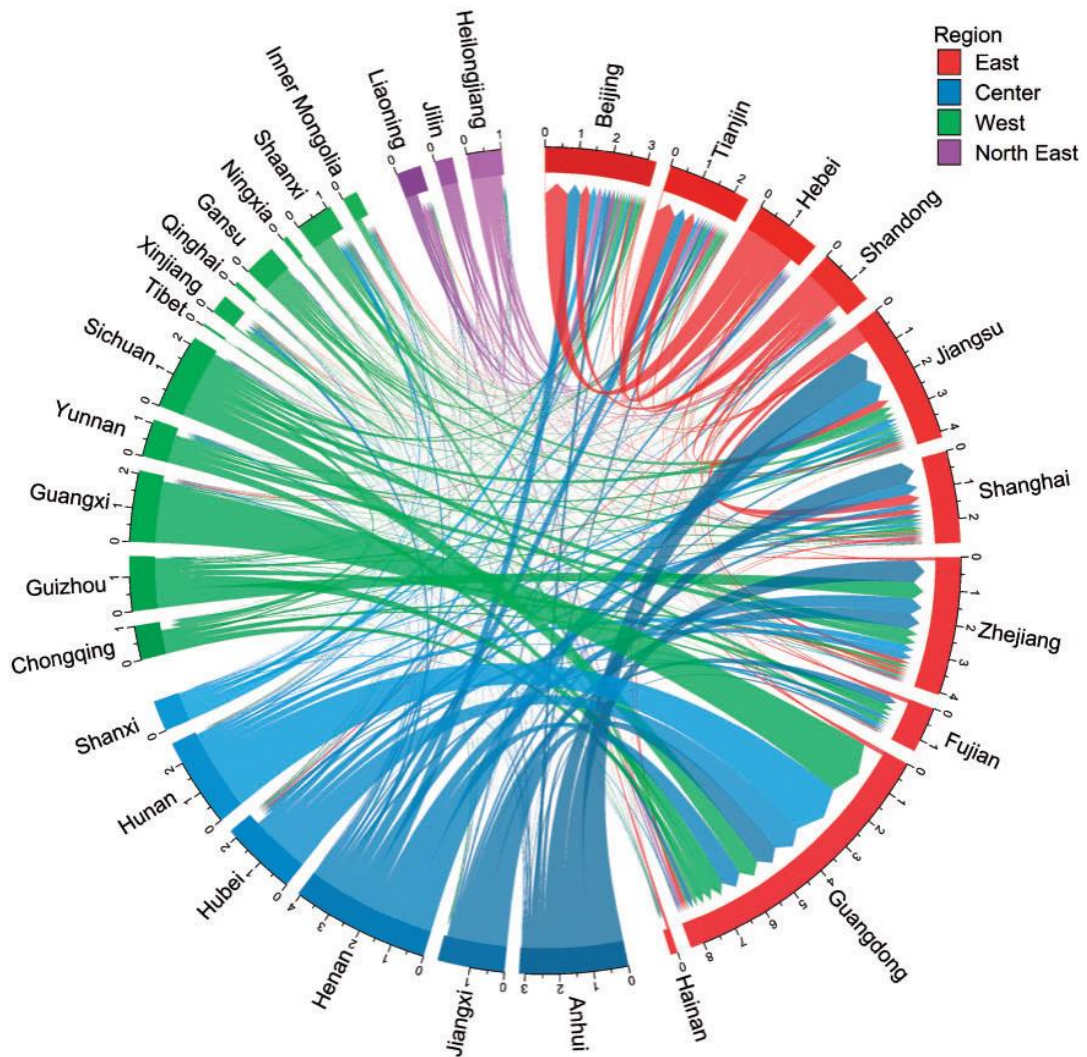


Figure 2.4.3. Bilateral net migration during 2010–2015 in China (unit: million).

This descriptive analysis also uses the National Population Sampling Survey from China, but this plot is made from the latest dataset from 2010-2015. Figure 1 shows the original province and destination of interprovincial migrants in China; figure 2 shows the net migration of every province, “calculated by the difference of two bilateral flow sizes, where only the positive net flow values are shown” (Qi et al., 2017, p. 2435). This reflects the disparate development of different regions in China from a broader perspective.

With this general Eastward migration trend, the outward migration of higher education institution graduates has become a serious problem for Central and Western China. This brain drain situation finds statistical expression in a considerable number of empirical

studies. For instance, professor of geography Ye Liu did a series of studies about inter-provincial migration in China based on a 15.22 per cent sample of China's 2005 one percent population sample survey (Liu et al., 2017, Liu and Shen, 2017, Liu and Shen, 2014, Shen and Liu, 2016). The sample size was larger than 2 million, and he included almost all aspects of the respondents. He extracted useful information from this survey and investigated the interregional migration phenomenon in China, including patterns and determinants of migration.

The most popular models to predict migration flows are based on the gravity approach.

This family of models, which are based on the gravity model of (Zipf, 1946), usually takes population of the region of origin, population of the region of destination and distance between these two regions as factors, and is based on the principle that 'frequency and interaction between two places are akin to the gravitational attraction between two masses' (Fan, 2005, p. 166). The most popular gravity-type model developed from Zipf's principle was brought out by Lowry (1966) as follows:

$$M_{ij} = k \left(\frac{U_i}{U_j} \times \frac{W_j}{W_i} \times \frac{P_i \times P_j}{D_{ij}} \right)$$

In this equation, P_i and P_j are, respectively, the masses of the two objects i and j , which usually represent populations from the two places. These two variations represent job opportunities, with index parameters which are usually positively related to population.

D_{ij} is the distance between origin and destination, which represents the difficulty of migrating between them. This is usually inversely proportional to migration population.

The unemployment rate of the two places (U_i, U_j) and hourly wages (W_i, W_j) are the secondary index that reflects economic development of these regions.

k is a constant.

Although the original gravity model only takes economic variations into consideration, this approach is still commonly used in Chinese internal migration research, since it is generally accepted and suggested by Chinese researchers that economic related factors are the most important in regional migration processes that determine large population migration flows to other regions. (Zhou, 2009).

Due to the lack of attention amongst Chinese scholars to comparisons between skilled and low-skilled individuals and their migration patterns, the overuse of flow data, and the lack of research which involves both individual characteristics aspects and regional external amenities aspects, the significance of factors that influence skilled migration and the distribution of skilled individuals based on migration flow data is under-examined. Thus, Liu's research about skilled migration is incredibly constructive. Unlike previous research about China that considered migrants in their entirety, without categorising them in terms of personal characteristics (Cai and Wang, 2003), (Liu and Shen, 2014) examined a sub-group of skilled migrants who were defined as an "economically active population aged 24–64 who had obtained a tertiary education qualification" (p.753), to find out their tendencies of moving to other regions. This definition runs throughout Liu's subsequent research about the skilled vs less-skilled migration comparison, and higher education institution entrants and graduates comparison. By modelling skilled migration flow in China using the gravity model, the Poisson model and the modified Poisson model, Liu found that not only was the distribution of skilled individuals in China significantly imbalanced in that period (which confirmed the serious brain drain in the Central region of China), but also that there were different preferences in destinations of skilled migrants. In this research, Liu and Shen indicated that, in 2005, the Eastern region had 711,000 net inward skilled migrants, meaning that about 80 percent of the skilled workforce flowed to the Eastern region. At the same time, the Central and Western regions as a whole were experiencing massive loss of skilled workforce. Amongst all those regions, "Hubei, Hunan, Jiangsu, Henan, and Anhui had the

largest outflows of skilled people” (p.754). But as Liu and Shen claimed, although the Western region suffered a net loss of skilled people, the Central region was still considered to be the place that suffered the most serious brain drain - as a mass of higher educational institutions are located there (574 Higher Education Institutions as of 2005), and a large number of students graduate from Higher Education Institutions there as well (till 2005, 0.99 million). This brain drain situation in the Central region has also been emphasised by other researchers who are investigating migration inside China (Yue, 2011, Cai and Wang, 2003, Qi et al., 2017, He and Zhai, 2015, Hao, 2013, Peng, 2010). According to (Zhu, 2008) and (Zhong and Wen, 2007), from 2004 - 2006 in the Hunan province (which belongs to the Central region and is considered to be a developing province), the outward employment rate of graduates was 48.80%, 52.16%, and 48.13% in each year respectively, while the local employment rate was almost half of that, with 22.94%, 24.08%, and 23.49% respectively. The employment orientations were mainly Shanghai, Guangdong, Beijing, Zhejiang, Jiangsu and Tianjin, which all belong to the top 10 developed areas in China (Zhong and Wen, 2007). Three years after their 2014 study, (Liu and Shen, 2017) did subsequent research which compared the patterns and determinants of skilled migrants and less-skilled migrants. They reported that “all provinces except Qinghai and Guizhou exhibited a net loss of skilled people, and most provinces in the Central region along with Shaanxi suffered the most from brain drain, showing an efficiency score lower than -60.00%” (p.7), confirming the finding that the Central and Western regions in China suffer greatly from net skilled outward migration compared with Eastern provinces. They also found that, compared with less-skilled people, skilled migrants are “more capable of coping with transportation costs, psychic costs” (p.10), which means that they tend to be more mobile over long distances.

Amongst higher education institution graduates, who are considered to be synonymous with highly skilled workforce, the majority are found to be return migrants, in other words, most of them tend to migrate to their region of origin. (Ma and Pan, 2013) claimed that,

controlling for the “regional economic development level” variable and the influence of different distributions of Higher Education Institutions, graduates still tended to seek employment in the region of their household. (Liu, 2011) also found out that, although employment expectations vary among graduates from Western, Central and Eastern China, there is still a strong tendency to migrate to where they used to live after graduation. Moreover, Liu also found higher education institution graduates tend to choose urban areas over rural areas, no matter whether they come from a rural area or not.

After eliminating the influence of domicile location, (He and Zhai, 2015) found out that, despite the strong tendency to move back to region of origin, the trend of choosing tier one cities* (mostly located in Eastern China) as a destination is still dominating graduate migration flow.

Similar to Western studies, there is debate in the interregional migration research field about which theory of migration dominates migration decisions: equilibrium or disequilibrium models, economic opportunities or amenities. However, compared with existing research, external economic factors show even more explanatory power in China. While investigating skilled migration in China, most researchers tend to apply the disequilibrium model implicitly due to the unbalanced situation. Previous studies have reported that wages and job opportunities are the most attractive element of a province for skilled people. For example, (Liu and Shen, 2014) claimed that “skilled migration is predominantly in response to wage levels of receiving regions” (p.766), with a counterintuitive sign of coefficients for social amenities also indicated. Based on previous research results (Qian, 2010, Florida et al., 2012), these authors speculated that Chinese people tend to prioritise their career over living quality in the context of an industrialised economy. Other factors that are found to be significantly related to interregional skilled migration are wage level of destination, cost of

living, climate amenity, medical services, and openness of social networks (Liu et al., 2014, Liu and Shen, 2017, Qian, 2010, Yue, 2011, Yue and Li, 2016).

Despite the similarity to existing research - direct individual level factors such as gender, age, education level; external economic opportunities such as regional development level, wages, unemployment rate; and cultural and amenity factors - the interregional migration pattern of higher education institution graduates and the way that these factors influence this phenomenon has some disparities and specificities in the special context of China.

2.4.2 Theories in Chinese migration research

In the context of New-type Urbanisation, some researchers started to challenge the existing Chinese interregional migration research, which is dominated by the geographical economic field. (Zhu et al., 2019) This raised questions related to these new lenses and theoretical frameworks that suit the Chinese context better.

In a systematic review of contemporary Chinese internal migration research, Zhu reviewed migration research from recent years in China, and suggested four new perspectives that might suit the contemporary Chinese migration research context: 1) Hukou and migration; 2) Circulation, settlement intention and family migration strategies; 3) Social network and migrant communities; 4) Migration, mobility and the everyday practice of migrants.

One of the most significant distinctions between China and Western countries is that the policy on migration flow, “Hukou ” (registered permanent residence) system, still has a strong impact (Lu and Wang, 2007, Liu, 2016b, Yue and Li, 2016). Since China has a very centralised government, its policies have strong executive ability. This makes implementation easier, and makes the control of migration realistic (such as from the 1950s - late 1970s, especially the Great Cultural Revolution period’s “The movement of educated youth to go and work in the countryside or mountain areas policy”, which forced more than

fifteen million young students to migrate to rural areas). However, China is now also a market-oriented economy, and the effectiveness of policy has gradually become influenced by economic factors. Whether the Hukou system still works on migration behaviour and migrants the same way as it did before leaves a great gap for further investigation.

The more frequent and multiple migrations of Chinese internal migrants raised a topic related to settlement intentions and family migration strategies. This also influenced theoretical frameworks on interregional migration research related to this aspect.

In traditional Chinese interregional migration research, from Neo-classical Theory, which considers migration as a result of rational choices, migration is a process of maximising benefit. Based on this point of view, migration decisions and destination choices are usually based on an individual's expectations related to the destination region, and also related to individual factors such as age, gender, education level, working situation, etc. These factors may influence the stability of their income, job, and might also influence their expectations of the result of their migration. However, due to the complexity of Chinese society, the results from Neo-classical research in different regions of China, and research in different time periods, are heterogeneous.(朱竑 et al., 2019)

From a location specific capital perspective, the migration process is accompanied by a changing of social and cultural environment, which makes accumulation of human capital difficult to transfer from one place to another. This may also affect the settlement of migrants.

From a New Economics of Migration perspective, family benefit maximisation and family risk minimisation is also emphasised, and will also influence an individual's migration choices. (Stark and Bloom, 1985)

Social networks are closely related to social capital, and the social capital developed from social networks in the destination region will significantly decrease the cost of

migration for migrants. The support system built by social capital accumulated in the destination region includes accommodation, job opportunities and information related to settlement in the destination region, etc. Although social networks provide migrants with benefits in the destination region, researchers such as Li suggested that the cultural affinity and ethnic loyalty which confines migrants (especially migrants from ethnic minority communities) within their particular community might have a negative influence on mobility towards mainstream communities, and constrains the obtaining of benefits of migrants. This is usually considered as an ethnic mobility trap. (Li, 2004) In the Chinese context, this isolation of community manifests strongly in rural-urban migration, and the difficulty in integration of rural migrants into the local community of their destination region might be related to the urban-rural dual system in China. (Zhu et al., 2019) This perspective offers a new perspective on the influence of social networks and social capital on migration aspirations.

From a more micro level perspective, Zhu suggested that everyday practices of migrants including their identity construction, emotions, and many other aspects should become a key point for migration research. Theories related to 'space' and 'migration turns' are introduced in investigating migrant mobility in the new era. Migrants are no longer considered objects waiting to be accepted by the society of their destination, but as individuals with subjective initiative. Mobility should not only be emphasised in the spatial movement of migrants, but also in the flow of cultural and social environments, ways of thinking, and emotions of migrants. More importantly, there are connections and interactions between these elements in different contexts. For example, for migrants from one place to another (especially from rural to urban areas), the formation of a new definition of 'home' in the destination region is complicated and challenging. The definition of 'home' for them will be changeable and fluid. Spatially, this can be defined as the home of origin and the home that is newly formed in the destination region, but also the space for emotional

interactions and social relations that are constructed with the negotiation between migrants and the society of their destination region. (Lawson, 1999, Gustafson, 2001, Zhu et al., 2019)

2.4.3 What is special in China ?

One of the most significant distinctions between China and Western countries is that the policy on migration flow, “Hukou” (registered permanent residence) system, still has a strong impact (Lu and Wang, 2007, Liu, 2016, Yue and Li, 2016). The *Hukou* system is a household registration system which is equivalent to an internal visa arrangement and is meant to regulate migration. In recent decades the system has been quite restrictive, not only by limiting migration flows from rural to urban areas, but also by putting a brake on inter-urban migration flows. (Bosker, et al., p. 253) Since China has a very centralised government, its policies have strong executive ability. This makes implementation easier and makes the control of migration realistic (such as in 1950s - late 1970s, especially the Great Cultural Revolution period’s “The movement of educated youth to go and work in the countryside or mountain areas policy”, which forced more than fifteen million young students to migrate to rural areas). But now, China is also a market-oriented economy, and the effectiveness of policy has gradually become influenced by economic factors.

The “origin of students” has a strong impact on graduate migration. The largest proportion of graduates migrate to where they were originally domiciled. (Although, despite this strong tendency of returning to regions of domicile, most graduates still tend to migrate to the Eastern area) (Song et al., 2014, He and Zhai, 2015, Ma and Pan, 2013).

According to a survey done by Northeast Normal University School of Media Science "Precise News" team, up to 2015, more than 40% of graduates tended to return to the place where their families lived after graduating. Amongst the participants who reported an intention to return, 15.1% of them showed a strong will and aspiration to “go home”, while

most participants did not show a negative reaction to returning home. However, in this survey, the intensity of the return tendency of graduates varied between regions. 61.9% of graduates who originally came from Eastern China showed return intentions, while this was significantly less for relatively less developed areas.

When investigating the factors that lie behind this phenomenon using “push-pull theory”, (team, 2015) found that nostalgia had the most significant coefficient, meaning that social networks such as relationships with family and friends pulled them to return. The other essential factor is the low living cost, which is related to the accumulation of family capital. On the “push” side, lower living quality and severe employment situations in metropolises can negatively impact graduates’ desire to move there.

Surprisingly, policy factors did not show a significant coefficient, and also, the efficiency of policy factors showed a positive relationship with education levels.

The structural disequilibrium in the employment of higher education institution graduates is related to their conception that “developed metropolises are where elites congregate. Living and working in these areas represents success and is positively related to future personal achievements and the possibility of achieving their dreams” (He and Zhai, 2015).

Females are less likely to migrate than males in China, and this is different from recent research in developed countries (Zheng and Wu, 2017a, Yu and Gao, 2018, He and Zhai, 2015, Yue and Li, 2016).

As shown above, although most studies examined migration patterns and determinants of interregional migration, limited attention has been paid to the aspirations of these young graduates, as well as their attitudes, and their understanding and interpretation of current policies aimed at retaining them. Investigating migration aspirations has the advantage that it “avoids migrants from after rationalizing and expressing preferences that they may have

developed after having moved” (Niedomysl et al., 2010, p. 1639). Also, due to the lack of systematic policy evaluation, and the lack of understanding about how migrants’ agency reacts to these structural factors, the efficiency of these migration related policies still remains unclear. The absence of people’s interpretations makes it almost impossible to reach the essential reasons that answer the question “Why do they want to migrate?”. This, combined with the lack of a policy evaluation system, will influence the efficiency of policies, and may result in the waste of national resources. For example, it is acknowledged that great scenery, such as places with a sea view, will attract inward migrants. However, if policy makers decide to attract migrants by increasing housing density so that there are more buildings with a sea view, it might actually decrease inward migration. This decrease may not simply result from housing density, but the deterioration of general living quality. In other words, even though “sea views” shows a significant coefficient in factor analysis, this could be misleading, as the real reason for attractiveness is “living quality”, of which “sea views” is just a part. Therefore, in the author’s opinion, when implementing and evaluating policies related to migration behaviour, people’s understanding and interpretation is significant and should not be ignored.

Another aspect in which the Chinese context differs from other countries is the special education counterpart system. The division of students in high school was implemented in China in 1977 with the reinstatement of the CEE system. In the first year of high school, students are asked to take three basic compulsory courses (Chinese, mathematics, one foreign language) and both liberal arts and general science courses (history, geography, politics, chemistry, physics, biology), and at the beginning of their second year, students will be asked to select their department. While continuing with the basic compulsory courses, students will choose to major in liberal arts or general science (Cai, 2009). This not only decides the major courses that students will study in high school, but also decides the type of College

Entrance Exam that they will take. For art students, in addition to the choice between liberal arts/general science department, they will attend national level, provincial level and college level art exams based on their art specialities. This means that art students will take the normal CEE and multiple extra exams, but at the same time, their standard required score in the normal CEE test is lower than general science/liberal arts majors. This system has been applied for over 30 years and has raised debates among scholars and policy makers about whether or not this counterpart system, which used to fit with the needs of developing scientific and technological talents, promoting economic development and social productivity in an earlier period, is suitable for the current situation in China. (Cai, 2009) However, the negative consequences of the counterpart system are also obvious. The state council of the PRC published a series of policies called 'Opinions of the State Council on the Implementation of deepening the Reform of the Examination and Enrolment System' in 2014, which included an adjustment related to the division of art and science subjects in high school. (the State Council of the People's Republic of China, 2014) Following the instructions from the central government, there have been provinces that have gradually started to loosen the division of subjects in high school since 2017.

From a social perspective, the definition of social class in China is relatively less clear than other countries. Zhao's (2013) introduction to the current social class stratification in China gave a broad explanation on the Chinese social strata. He suggests that in the past few decades, a new social stratum has appeared and the definition of social class in China has experienced several significant changes. But in recent years, the debate among academic researchers about class stratification has been centred around two dimensions, whether to separate 'social class' and 'social stratum' or not, and whether a bourgeoisie exists in China or not. One opinion claimed that only a working class and a peasant class exist in China, and

that no matter what kind of new stratum appears, this 'class' stratification is closer to 'stratum' stratification, since even if there are conflicts among different social strata, there is no exploiter and exploited between them. On the other hand, it can be argued that, since the development of a private ownership economy, there is not only a working class and a peasant class, but a newly appeared bourgeoisie, and the latter and the former have a relationship of exploitation. Zhao also suggested that since China is a country on the road of developing into a socialist society, the means of production and surplus labour cannot be directly controlled by everyone. Even for a state-owned economy, there is still a management class and ordinary working class in Chinese society. Although the state and social management class should not have an exploitative relationship with people, there are still corrupt elements that exist among them. As for a private-owned economy and the rising of a new class based on the free market, Socialist societies such as those Marx described have no private owned economic elements. As a socialist country, with the state-owned-enterprises reform pushed by the government, public ownership still dominates the economy. This Socialist market economy includes two indivisible elements: state macro-control and the market economy. The market economy plays a decisive role, but not the decisive role. (奚洁人, 2007) This means that, in China, not only do privately owned economic elements exist, but they have made great contributions to the economic development of China. How to define this new type of stratum in China, the discussion about whether this stratum exploits surplus labour, and what part of labour can be defined as surplus labour, also comes along with the rise of private entrepreneurs.

The confusion of class stratification not only comes from the more complicated class composition of Chinese society, but also the fear of class warfare (which is usually closely related to political conflicts such as the Cultural Revolution in Chinese history). The worry is that class antagonisms might influence the economic development under Socialism with Chinese Characteristics. It is compulsory to learn Marxism in Chinese education institutions,

which makes Marxism a commonly accepted theory. However, education in China about class stratification in Marxism is broad but basic, and new social strata that have risen with the new era are rarely discussed. (Zhao, 2013) In the sociology research field in China, the discussion about class stratification has never stopped. However, for students, social stratification is a topic that is distanced from daily conversations, and is more complicated than what they might have learned in universities. It is a natural consequence that interviewees felt confused about their social class. This might make it more difficult to investigate the migration aspirations of graduates from a social class perspective.

2.5 summary

‘Understanding the factors that attract people to move to different places is pivotal for scholars of regional science and has consequently stimulated a great deal of debate and empirical studies.’ (Niedomysl et al., 2010, p. 1636) However, in this research, understanding the factors that motivate people’s migration aspirations is, to some extent, at the same level of importance as the actual migration behaviour that might subsequently happen. As has been pointed out by some scholars, assessing the costs and benefits in actual revealed migration behaviour is not sufficient for migration research - there are demands that remain unfulfilled, which are still considered part of the migration process, and should not be ignored. (Carling and Schewel, 2018) The strategy of analysing data related to migration aspirations can also be similar to analysing the data of revealed migration activities, since the key issue here is to make a relatively clear description of the potential migration trends and then analyse the factors that drive these migration aspirations. For example, the research by Carling and Schewel (2018) using their two-step model of

migration started from mapping migration aspirations on a world map in order to capture the general trends of migrant destination choices.

Similarly, in this research, the descriptive analysis used chord diagrams and maps of mainland China to describe students' migration aspirations and intentions and to see if there was any geographical aggregation in their potential migration choices. For instance, for students facing their first employment, their migration choice is actually not their first migration decision, but their second, since the migration from original domicile to the location of higher education institution took place before that. (Faggian et al., 2006) In order to investigate a student's home-university-job sequential migration, this research, similar to Faggian, also categorised students into five types based on their intended destination.

It is crucial to recognize that, in the Chinese linguistic environment, the terms for aspirations and intentions bear a striking similarity, which could potentially lead to confusion when attempting to differentiate between the two concepts. This linguistic overlap may influence the interpretation and analysis of migration-related phenomena in Chinese society, as the distinguish between migration aspirations and migration intentions are often blurred. Usually, it is essential for social scientist to carefully examine the meaning of these two similar terms in Chinese language context and exercise caution to employ methodologies when investigating migration related phenomenon in China.

However, it needs to be noted that although Carling and Schewel have drawn a clear distinction between these two concepts, with migration aspirations referring to an individual's desire or hope to migrate and migration intentions indicating a concrete plan of relocation, the context of graduating Chinese students sometimes leads to a convergence of these two notions. Due to the impending transition from university life to the workforce or further education, these students have already been contemplating and formulating their

plans, including specific plans regarding their preferred destinations post-graduation. Consequently, their migration aspirations and intentions become virtually indistinguishable, as their desires to move align closely with their well-defined plans to do so.

Consequently, in this study, the paramount concept is 'migration aspirations' within the research question. While deviating slightly from Carling's definition of aspirations, herein, migration aspirations are characterized as a definitive desire to move towards (or remain in) a specific region. These aspirations encompass students who opt to relocate outwardly, stay where their Higher Education Institutions (Higher Education Institutions) are situated or return to their original domiciles.

Given that the primary objective of this investigation is to examine the underlying factors contributing to Central China's brain drain phenomenon by scrutinizing graduate candidates - which represents an optimal approach from a pragmatic standpoint - this definition proves its rationale.

Nonetheless, the researcher acknowledges and appreciates Carling's perspective on distinguishing between migrants' ideal and actual situations during migration. Consequently, it might be beneficial to incorporate an open-ended question allowing students to express ideal circumstances which may not be revealed when discussing realistic migration plans.

Chapter 3

Methodology

In this chapter, the methods and methodology of this mixed methods research will be presented. First, a general overview and refined research question will be presented in the introduction section (section 1). In the epistemology and ontology considerations section (section 2), the researcher will discuss positivism and interpretivism in terms of their different epistemology and ontology, and make it clear why the researcher tends to hold an interpretivist position in this research. In the methodology section (section 3), the researcher will review related literature about grounded theory and statistical modelling, how it will be if statistical modelling can help qualitative research, and then related theoretical paradigms will be introduced. The methods section (section 4), presents the research design and the design refining process considering the rationales for sampling, participant recruitment and its geographical location, time period and ethical issues. In section 5, the researcher will describe and justify how the data was collected and analysed. This section will be separated into the survey section (section 5.1) and the interview section (section 5.2). The potential limitations of the methods in this research will be discussed in section 6, followed by conclusions in section 7.

3.1 Introduction

Through literature review, an obvious phenomenon can be found in the interregional migration domain in Western academia. Theoretical frameworks that are commonly used in Western interregional migration research are varied - economic theories are dominant (e.g.

human capital theory (Faggian and McCann, 2008, Faggian et al., 2014, Faggian et al., 2007a, Faggian and McCann, 2009a, Rowe et al., 2017, Corcoran et al., 2010); push and pull theory (Niedomysl et al., 2010, Fan, 2005, Hansen and Niedomysl, 2008, Lee, 1966); cost-return (Sjaastad, 1962)); with some geographical theories (e.g. regional attractiveness theories (Niedomysl, 2010, Niedomysl, 2006, Niedomysl et al., 2008); some sociological theories (e.g. social capital theory (Hotchkiss and Rupasingha, 2018); and some social mobility theories (Savage, 1988, Fielding, 1992).

Although these studies are based on various theories from different disciplines, the most significant commonality in Western interregional migration research is method. If the research methods are simply separated into two categories - quantitative and qualitative research - then a large percentage of studies will belong to the former category. This means that most are based on objectivist ontology and positivist epistemology. For instance, Alessandra Faggian, a key scholar in the interregional migration research field, has been working on interregional migration in different countries since 2004. In her research, the most commonly used methodology is econometrics modelling. For example in Faggian et al. (2007b) the research about gender disparities in interregional migration, and Faggian et al., (2006) the research related to ethics, this framework is used to “identify the effects of gender, human capital, and other personal characteristics on determining the types of sequential migration behaviour” (Faggian et al., 2007b, p. 522)

Faggian has also used simultaneous equation models to “estimate the employment-migration flows of university graduates into a region as a function of the region’s innovation dynamism, and at the same time estimate the region’s innovation performance as a function of its graduate human capital inflows” (Faggian and McCann, 2008, p. 235), etc. Other approaches such as probit regression framework (Tang et al., 2017, Faggian et al., 2007a) are also popular.

What the majority of interregional migration studies have in common is that they are based on assumptions that are shaped by existing knowledge and theories, then test and deduce these theories in a certain context, and then come up with new elements to the existing knowledge. A minority of sociological researchers are challenging this dominant paradigm by exploring interregional migration from another perspective. For example (Findlay et al., 2018) conducted interview based research in order to understand student flows from north to south in the UK. (Sage et al., 2013) claimed that the problem with existing datasets is that national administrative data sets provide 'snapshots' of migrant movements, but not specific and persistent information, and therefore employed an innovative survey with open-ended questions in order to investigate the reasons behind return migration behaviour. (Niedomysl et al., 2009) even conducted experimental research to demonstrate that applying open-ended questions in a survey is reliable and that coding variability is not a major problem for this method.

The trend of applying statistics and econometrics in interregional research has influenced research in the Chinese context as well. Although existing research in the context of China has already given fairly adequate information about migration flows in China, a large number of the studies reviewed by the researcher are aimed at answering questions related to "what" - for instance, "What are the patterns of graduate migration in China?", "What are the factors that influenced their migration decisions?" (Yun, 2016, Shi, 2015, Liu, 2016), "What are the gender disparities in graduate migration?" (Ma et al., 2017, Yue, 2014), etc. Related to the belief in making an effort to get close to reality successfully, positivist researchers choose to answer these questions by gathering and analysing data that can be considered as generalisable, reliable and valid. Through describing and predicting developing trends in migration flows based on existing numerical data, researchers have made a great effort in shedding light on the migration patterns in China. However, when

questions related to “why” and “how” need to be answered, seeking to model reality turns out to be insufficient.

Research investigating migration factors and migration patterns in China has seen very little change in terms of research design, but rather the content of the data is renewed every few years.

In order to have a better understanding of the migration intentions of graduate candidates and their perspectives on graduate retention policies in Central China, related to the research context in China, the research questions were set as follows:

- What are the migration aspirations of higher education institution graduates in Central China? What are the factors that influenced these aspirations most?
- Where and why do they want to move? Why are the policies intended to retain graduates in Central China not as effective as expected?

As with existing research, the researcher still intends to find some answers to the question “what”, since the purpose of this research design is not to criticise the positivism paradigm, which has been commonly used in migration research and has been empirically proven to be useful. However, it should be clear that migration behaviour is a complex process with internal procedures (such as personality and psychological aspects) that are hard to describe with numerical data, and so interpretative data have a significant position in this study as well. In order to answer the above questions, the researcher employed a mixed methods research design, based on a pragmatism framework.

3.2 Rationale for mixed methods research

Avoiding the limitations of dualism and methodological purism

Another perspective emerged and started to critically re-examine the dualism of research paradigms mentioned above in 3.2.2. The mixed methods paradigm, which has been called the “third research paradigm” (Johnson and Onwuegbuzie, 2004), uses multiple approaches to address a research problem. In this section, the researcher will review related research paradigms that might be useful in this research project, while discussing the pros and cons of mixed methods research, in order to provide an adequate rationale for the following research design.

According to (Creswell and Plano Clark, 2018), researchers in the late 1980s tended to define mixed methods research as including both qualitative and quantitative methods, with neither of these methods “inherently linked to any particular inquiry paradigm” (Greene et al., 1989, p. 256). Over the next ten years, the definition shifted from a pure combination of two or more different methods, to a combination of all aspects in the research process, such as mixed methodology (Tashakkori et al., 1998), mixed-viewpoints (Johnson et al., 2007), and mixed-paradigm (Johnson, 2017). In 2007, Johnson et al. came up with a relatively comprehensive definition citing variations that had been discussed in the few decades prior. These variation include “what was being mixed”, “in which stage did the mixing occur”, “the scope of mixing”, “the purpose of mixing” and “elements driving the research” (Creswell and Plano Clark, 2018, Johnson et al., 2007):

Mixed methods research is the type of research in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches (e.g., use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the broad purposes of breadth and depth of understanding and corroboration.

A mixed methods study would involve mixing within a single study; a mixed method program would involve mixing within a program of research and the mixing might occur across a closely related set of studies. (P.123)

In mixed methods research, it is usual for both quantitative and qualitative data to be collected and analysed, and both forms of data and results to be integrated. Research procedures are specifically designed to conduct the study according to a certain research question, and these procedures are framed within theory and philosophy (Creswell and Plano Clark, 2018). Therefore, the most significant advantage of mixed methods research is avoiding paradigm dualism and methodological purism.

To address this issue, (Gert, 2010) clarified three concepts at the beginning of his discussion about pragmatism and the philosophical foundation of mixed methods:

- a) The taxonomy of qualitative and quantitative research: he claimed that it is imprecise and unhelpful to simply categorise research as quantitative or qualitative, since “research itself can be neither quantitative nor qualitative, only data can properly be said to be qualitative or quantitative. Data can either be quantities or qualities.” (p.98). Simply using the notion of qualitative research and quantitative research for a whole cluster of research aspects may cause quasi-problems and oppositions.
- b) The notion that paradigms tend to “bring under one heading a range of different ideas and assumptions that do not necessarily have to go together” (p.99). He suggested that paradigms can cause a rigid, grand position that may lead to the ignorance of discussions about the assumptions that underpin research.
- c) The notion of positivism as a concept is unhelpful. This is because researchers who believe that “known” and “knower” are independent automatically end up being grouped as “positivist”. This gives some researchers an excuse to exclude real issues in their research, as well making other researchers easily brand positivistic beliefs as “bad” without considering the reasons and possibilities that knower and known might be independent.

(Gert, 2010) proposes that epistemology and ontology can be discussed as separate questions rather than parts in a cluster of elements that are related to each other (such as paradigms). This does not mean that epistemology and ontology are simply personal choices, and that approaches can be mixed without following any principles. Rather, it suggests that, compared to a paradigmatic perspective, there are more combinations than is usually assumed. Although the researcher does not totally agree with Gert's negative opinions on paradigms, she is convinced by his emphasis on research purposes which do not necessarily have a strong connection with ontological assumptions. Depending on the research purpose, causality can also be social rather than mechanical. Gert takes research into teaching and learning as an example. He says that, while mechanistic ontology might be adopted by researchers for this subject, there is a more interpretive nature to teaching and learning that would be better investigated with a social ontology. All of these choices are based on research purpose rather than ontological assumption - suggesting that pragmatism makes sense in avoiding the limitations of dualism and methodological purism.

There are other advantages of mixed methods, as Creswell and Plano Clark (2018) summarised: mixed methods research “provides a way to harness strengths that offset the weaknesses of both qualitative and quantitative research” (p.12); provides more evidence for investigating a specific research question; helps in answering questions that cannot be answered simply using quantitative or qualitative research methods; offers a way of gaining new knowledge beyond the sum of results from qualitative and quantitative research; encourages multiple worldviews and perspectives; enables researchers to write multiple publications from a single study; helps develop broader skills, etc.

However, although mixed methods research seems to be a relatively new and practical methodology for many researchers, it is not a cover-all solution that can be used in any situation. The researcher needs to determine whether their research questions can be

addressed by mixed methods or not. In the next few sections, the applying of a mixed methods approach for the research question of this project will be justified.

3.3 Methods

In this section, you will see how this research is shaped and how different methods work in the research design based on its paradigm. Research design is often a cyclical process of defining and self-criticising, and so this section contains the reasons for methods used in the research design, as well as the rough process that the research design stage went through.

3.3.1 Research design

To explore the migration phenomenon in China, based on the research questions above, two different types of material were necessary: mass numerical data that is related to general trends of graduate migration flows in China, and in-depth interpretative data from graduates themselves. In this study, the researcher implemented a convergent mixed methods design. Different from explanatory sequential design, which tends to use qualitative results to explain the former quantitative results, and exploratory sequential design, which starts from qualitative data collecting, followed by quantitative data collecting and analysis that test or apply qualitative results (Creswell and Plano Clark, 2018), in this research, in order to have a comprehensive understanding of students' migration aspirations and their potential migration abilities, convergent research design was implemented. According to (Creswell and Plano Clark, 2018), this design helps in obtaining a relatively small, but different and comprehensive, amount of data from limited participants. Also, it helps in bringing together both the strengths and shortcomings of quantitative and qualitative research (this will be explained in section 7 of this chapter).

In the researcher's case, first of all, since interregional migration research is led by Western researchers, testing whether or not Western migration theories could be applied to the context of graduates in Central China required a specific design that mixed different mainstream theories in one single study.

Secondly, extant econometric research on interregional migration in China has laid a solid foundation for exploring more detailed and focused issues. For example, why and how do factors that have been found to correlate to movement influence graduates' migration aspirations? Again, the limited number of interpretative research studies aimed at investigating graduates migrating from Central China provided a great chance and rationale for conducting this convergent mixed methods design.

Thirdly, a more practical problem (for funding reasons) was the limited time available for data collection (about two months), so collecting both quantitative and qualitative data together was more efficient and economical.

The research design comprised three stages:

Pilot stage: The researcher conducted a pilot study on the survey and interview guide. These two instruments were designed based on existing research in Western countries and China. The purpose of this pilot study was to examine the accuracy and efficiency of the design, in order to revise both questionnaire and interview design before starting data collection. Participants in this stage were asked to provide face to face (or online) feedback (30 mins) related to the online completion (10 mins) of the survey and answering (30 mins) online or face to face (a mix, to test out both methods) the Stage 2 and 3 interview questions. Six 4th year students in the above universities were invited to take part in this stage. The recruitment

of participants for this stage was based on convenience sampling, and participants were, therefore, the researcher's friends and their friends.

Stage 1: The researcher conducted an online survey with 4th year students in three target universities in Central China. The survey was designed online using Bristol Online Survey Tool to make sure data was well protected. Participants were asked to fill in a short self-completion questionnaire (20 mins) online with some simple questions about their migration intentions and perspectives on graduate retention policies.

An incentive was offered - participants who filled in the questionnaire could be entered into a raffle, and about 3% of participants had the chance to receive a 10-50 CNY book card from Amazon.cn.

The questionnaire was designed to be short enough that each participant could finish in 20 minutes and included multiple choice questions and single choice questions (see attachment). The aim was to recruit about 200-500 students per university (approximately 600-1500 students in total) to take part in the survey.

Data from this stage was analysed by statistical software R to model the migration trends of graduate candidates in Higher Education Institutions in central China.

Stage 2: The researcher collected interview data from target participants by face-to-face (or online) interviews (45 mins). 7-8 participants in each university (24 students in total) were selected from 4th year students in each of the three target universities in Central China.

In the survey, there was a question asking for contact details. This was for entry to the raffle, or if participating in Stages 2 and 3. Contact details were destroyed unless consent was given for the researcher to retain them for a post-doctoral research project (i.e. after their PhD) to track participant career and migration. The interview participants were selected from the survey respondents on the basis of gender and programme within each university. Incentives

were offered to survey participants (in the range of 50-100 CNY = £6-£11) to encourage interview participation.

The participants talked freely based on their own understanding and experiences under the theme – related to their decision-making process, considerations about migration destinations, understanding of migration behaviour and graduate retention policies in Central China, etc.

About 7-8 students per university (23 students in total) were interviewed in this stage. The length of each interview was kept within 1 hour, to make sure both interviewer and interviewee were in good condition and to reduce any psychological pressure that might occur to participants. No sensitive information or private information, such as sexual orientation or physical disability was involved in these interviews. The interviews were sound recorded in order to be transcribed before data analysis. Data was analysed using software Nvivo, drawing on the coding strategy of (Corbin and Strauss, 1997; Glaser et al., 1968)

A thematic approach to data analysis was employed, for instance, to identify disparities in graduate interregional migration.

At the very beginning of this research project, the researcher intended to design the research as a qualitative research based on grounded theory, to figure out where graduates go, and why, after graduating from Higher Education Institutions in Central China (instead of searching for local employment). It is always interesting to know why graduates have certain migration aspirations, and how this is shaped. However, this was found to be unrealistic to some extent. First of all, interregional migration research has been dominated by positivist empirical research for decades. This trend was led by the great contributions that positivist researchers have made in this field – it is sensible to stand on the shoulders of giants and use what has been proven to be efficient. Secondly, it is not easy to simply recruit graduates as

participants because they are graduates from Higher Education Institutions in Central China - their original domiciles and destinations after graduation are diverse, and therefore difficult to track and recruit. Therefore, the researcher altered the research question in the first few months of designing the research, focusing on investigating graduate candidates and their migration aspirations.

As interregional migration research in China is usually based on statistical databases which contain datasets that have been collected by university research centres or the Chinese Bureau of Statistics (such as (Qi et al., 2017, Fan, 2005, Shen and Liu, 2016, Yue, 2014, Liang and White, 1996)), the researcher decided to first investigate whether the interregional migration of graduates still has the same trends and patterns as existing research, through analysing the latest second-hand datasets from those databases. However, although the researcher tried different approaches in attempting to access these databases, most of them were inaccessible (Yue and Li, 2016, Yue, 2012, Yue, 2011, Liu and Shen, 2014, Cai and Wang, 2003). The rest were specifically designed, meaning that, even if the researcher gained permission to access these datasets, they would not be particularly helpful in this research.

Moreover, as inspired by “Do Attitudes, Job Preferences and Search Behaviour Explain Differences in Labour Market Outcomes Among University Graduates” research project by Dr.Simonetta Longhi and Dr.Sarah Jewell, the data collected by universities can lack reliability to some extent. Data on student outcomes (or in the Chinese case, graduate employment quality) are collected separately by each institution. Although publishing related reports annually based on the data is encouraged by the Chinese government, these datasets are not collected for research purposes, but to provide information for league tables and new student recruitment. Therefore, they might not strictly follow the same standard, and the quality of datasets is different.

This research aims to:

Corroborate and validate existing theories that have been applied to the Chinese context

Illustrate how these quantitative data relate to factors and patterns in students' migration behaviour by collecting their interpretive data, which makes the whole issue clear and in-depth.

The research design was then refined into a convergent mixed methods research including first-hand numerical and interpretative data collection. The order of these two data collection stages was refined several times as well. However, because this is a convergent design, the numerical data and interpretative data have similar weight in this research, the reason for deciding the order of this data collection was based on more practical purposes. For example, as mentioned above, the data collection was time-limited, which meant the most effective way of collecting interpretative data was to find participants with the highest possible heterogeneity, minimising time cost while gaining relatively comprehensive data. The most practical way of achieving this target was to collect basic personal information from a large range of students, in other words, by collecting numerical data. Also, contact details could be collected from the survey stage, and retained for recruiting participants in the interview stage. The selection of participants in the interview stage was based on criteria which will be discussed in the following sections.

3.3.2 Data Collection

Pilot stage – revising the survey and interview designs

The pilot stage, which aimed at testing the efficiency of research tools, not only perfectly accomplished what it was supposed to do, but also brought out some interesting phenomena that inspired the researcher in the following stages.

In this stage, 6 students were contacted based on convenience sampling, and were invited to fill in a questionnaire and to take part in an interview to talk freely about their migration aspirations after graduation (as other participants were asked to do for the main stages of the research). Additionally, participants were asked to give brief feedback about their experience of this stage and their suggestions for improving the design of the research tools. The pilot stage took place two months before the main stages of data collection, in December 2018. Since this was close to the end of the participants' penultimate semester of study, some were busy with final dissertations and diploma projects, and so the times they arranged with the researcher varied. This meant that this stage took around a month in total, including data collection and preliminary analysis.

In this stage, questionnaire respondent rate was 100%, all 6 students filled in the questionnaire efficiently. The coincidence in this pilot study was, surprisingly, that participants showed strong heterogeneity. The 6 participants belonged evenly to the three target Higher Education Institutions and the answers to the gender question were even, with 3 (50%) female and 3 (50%) male. These participants were majoring in different disciplines in different colleges, including science and engineering, media, fine art, etc. They were from different regions of China, and had different social backgrounds. Most students came from urban areas (66.7%), with only one participant being an ethnic minority (16.7%).

It is a common situation in China that local students (this word usually means students from the province where the higher education institution is located) are the majority in university. As Tam and Jiang (2015) and Jiang (2017) suggested, the existence of provincial admission quotas by national system determines entrance to Higher Education Institutions annually. This quota system determines how many

students are supposed to enrol in Higher Education Institutions in each province. Despite this quota system that is controlled centrally, Higher Education Institutions are mainly funded by provincial governments, and thus “the vast majority of college students attend a local institution”. (Tam and Jiang, 2015, p. 161) This phenomenon also appears in the pilot stage of this study.

In the pilot stage, the majority of participants (50%) were from Hubei province in Central China, where the three target Higher Education Institutions are located. 2 (33.3%) of participants came from Eastern China, and only one was from Hainan (the Southern province on an island of China) (16.7%). This might be influenced by the HUKOU system’s location discrimination in the University Entrance Exam.

Among these participants, most reported strong intentions to migrate to Eastern China (4, 66.6%), with only 2 (33.3%) of them choosing to stay in Hubei province. In the following interview, the participants who reported intentions to stay in Hubei explained their reasons: one of them was a pre-service teacher, which means he had to seek employment in his original domicile following the agreement he signed with the government to get funding; the other received a postgraduate recommendation and intended to continue her studies at her current university by doing a Master’s there. Both of these students showed an interest in moving to Eastern China in the next 10 years. Correspondingly, in response to the question “If you had the opportunity, would you like to move permanently to another city, or would you prefer to continue living in this city?”, no participants chose the answer “No, I would like to stay in Wuhan”.

Apart from the strong intention of moving to Eastern China, the other unexpected result was the low weight of policy factors in migration decision making and destination choice. No participant in this stage chose policy factors in their top 3

most important factors. When participants were asked about whether or not they were aware of any graduate retention policies that have been applied in Wuhan, they replied that they were aware of some of the names, or that they did not know any. This was reflected in the interview stage. Surprisingly, some students mentioned that they felt graduate retention policies were designed to help graduates who had difficulties finding a job - in other words, that they were above benefiting from these policies. The researcher found this very interesting, as according to the latest news reports (Changjiang Daily and Chutian Metropolitan Daily), the most famous graduate retention policy series - "Million higher education institution students retention project" - has been quite effective since it was implemented in 2017: the population of graduates who have gained HUKOU (Permanent Residence) in Wuhan and settled there reached 3,010,000 in 2017, and 4,060,000 in the first 10 months of 2018 (Li, 2018a, Li, 2018b). As the data came from a general survey, the more detailed component of the students who benefited from these policies remains unclear. Also, as to whether these graduates consider Wuhan (or even Central China) a temporary step to move to other regions, the newspaper did not report longitudinal data. The researcher assumed that the reason for this is that the new policies were only implemented the previous year, in 2017. Therefore, in the following research stages, participant attitudes to graduate retention policies will be a significant element.

Following the low weight of policy factors, most students gave "personal preferences" significant weight in their destination choice. In the "top 3 factor choice" question, 5 participants weighed this factor as very important. However, when participants tried to explain their personal preferences in the interview, the meaning of personal preference for each individual was complex and remained unclear (apart from the factors covered by the questionnaire). This complexity

and diversity in terms of participants' understanding of a certain term based on their context is similar to a recent study by Vilhelmson and Thulin (2016). They found an enormous gap between survey options and participants' meaning of the term 'environment'. "Unlike most other 'classical' migration motives - related to employment, studies, family, and housing - the environmental motive appears more open and porous, making it more difficult to define, concretise, and classify" (p.279). In a survey, it is easy to choose a response that has been provided, but the "perceived reason for making a move is complex and includes several considerations" (p.279). In order to address this knowledge gap, (Vilhelmson and Thulin, 2016) chose to conduct interviews aimed at understanding the meaning behind this response. However, as this research had a relatively large sample size and strict time limit, and the researcher wanted to gather as much accurate information as possible, the researcher formed this option in a more specific way, using a multi-line text box followed by 'personal preference' instead.

The validity of open-question usage in surveys on migration motives has been examined by Niedomysl et al. (2009). In this empirical study, through calculating Krippendorff's coefficient, Niedomysl found that inter-coder variability was relatively low when different coders were asked to code open-questions on migration motives. However, Niedomysl also pointed out that, although the inter-coder variability rate was low, there were still some types of responses that caused difficulty when different coders tried to code and analyse them. It was pointed out that "it was quite common that coders disagreed as regards responses that should (according to the majority of the coders) be placed in the category 'Other reasons' ... This suggests that responses related either to the living environment or housing are more problematic to code" (p.84). Therefore, not only should open-questions used in the survey be clearly explained, but the researcher

also needed to be aware that, in the following interview stage, the meanings of terms mentioned by participants needed to be explained clearly. (In other words, the frequency of asking “May I ask what you mean by...” should be increased.)

In addition, according to feedback that was given by the participants in the pilot study stage, some specific sociological terms in the questionnaire confused them, especially the term ‘social relationship’. In order to make these types of questions clearer and easier to answer for participants, the researcher added simplified explanations of these academic terms under these questions.

Some participants also found it difficult to provide information related to household income. On one hand, participants did not know their exact household income, and on the other hand, they did not know what should be calculated as household income. In all cases, income is an important indicator for categorising social class, so the researcher left this question as is, but added an explanation about what should be taken into account under this question.

Stage 1: Survey

1200 4th year students (graduate candidates) were contacted and then consented to take a 20 minute questionnaire (the questionnaire appears as attachment appendix 3). The questionnaire was designed based on multiple theoretical frameworks and referred to related studies such as a large-scale questionnaire survey on graduates nationwide by the Institute of Economics of Education, Peking University in June 2013. Since this questionnaire itself was not accessible, the researcher designed their questionnaire structure based on the results of this survey, including most of the variables that showed significance in that research (see attachment). This questionnaire was also inspired by an emigrants aspiration survey run by OECD (2015). Content included not only personal information, but also information related

to future plans after graduation, attitudes towards their migration aspirations, current and potential ability of moving, opinions about different places, etc.

The most common and significant advantage of doing a survey is that it is cheaper, unobtrusive and easier to administer (Bryman, 2016). An online survey is even cheaper and faster. Even when participants are widely dispersed geographically, the researcher can easily produce and send a questionnaire link through email by using an online survey tool.

In addition, a self-completion questionnaire helps in avoiding interviewer effects. It has been suggested by researchers that characteristics of researchers such as ethnicity, gender and religion will affect participant answers once the researchers themselves are involved in direct conversations (Bryman, 2016). However, when a self-completion questionnaire is completed, the researcher himself/herself is not - or comparatively less - present, which is more suitable for answering questions that might carry such interviewer bias. More objective facts such as patterns of interregional migration of graduates is a large element in this research project, which meant that designing a self-completion questionnaire, containing a minimum number of leading questions and avoiding the researcher's own perspective, was necessary.

Stage 2: Interview

The interview stage followed the survey stage. The survey stage was irreplaceable in informing the interview stage with important information such as respondents' personal details (which helped in selecting participants), providing interview stage validity and helping to avoid interviewer bias. Compared to simply conducting a straightforward interview, a triangulation with a survey significantly helped construct and refine the interview guide.

Producing an interview guide by referring to survey information not only helped reduce time wasted by getting information that could be answered easily using a questionnaire, but also helped the interview guide to become more specific and efficient.

Another important element was to minimise the anxiety that might be induced by some of the information that was required, in order to avoid respondents under-reporting. (Tourangeau and Smith, 1996) pointed out that respondents have higher response rates to questions containing sensitive information such as drug use and alcohol consumption in self-completion questionnaires than in structured interviews. In this research, factors related to social class and family income were included in the questions. As this is considered sensitive information for respondents in poverty, the questionnaire gave respondents a comparatively private environment to answer.

However, a survey is not enough for collecting direct and in-depth interpretations, has shortcomings in reflecting the real meaning respondents ascribe to things (for example, the meaning of 'environment' can refer to different factors of a society), and the plain words on a questionnaire can be interpreted differently by different respondents. This provided the rationale for doing semi-structured interviews.

The researcher conducted semi-structured interviews after the survey. This stage took about three months, where 23 participants were interviewed by the researcher face-to-face and online. In this stage, each interview took about 45-60 minutes. These students were selected from the survey, based on gender, discipline, migration intentions and other characteristics. These traits were based on theoretical constructs and the Chinese context. These participants were considered to be the most representative students and were relatively diverse, which provided more efficient information from the interviews. These participants were selected from respondents who had consented to take part in the interview stage and had left their contact details in the questionnaire.

Before beginning, interviewees were asked questions to confirm the personal information that was collected from their questionnaires. They were then asked to talk freely and express their opinions based on the key issues related to migration, such as their life experiences, graduate migration in China, their future plans, and about graduate beneficial policies in Wuhan. Students could choose to avoid questions and topics that they did not wish to talk about.

Since some of the respondents were passionate about the topic, some interviews took about 2 hours. The researcher chose not to let them run and not disturb their interpretations.

The reason for choosing individual interviews rather than a focus group is that, compared to focus groups, individual interviews give participants a free environment to express their opinion without being influenced by other participants, and this helps ensure the validity and reliability of the data. This research involved students from different family backgrounds, and also involved their personal experiences. One-to-one interviews gave students a safer interview experience, and helped avoid embarrassment when talking about their experiences or opinions.

3.3.3 Sampling

Participants were recruited from three target universities (a science and engineering university, an art or music specific college, and a broader (“normal” in Chinese parlance) university in Central China. Research subjects were 4th year students (who were over 18 years old). The survey involved 1200 4th year students from these three universities (400 students from each university), through email communication from the university administration offices about the survey, stating that students could take part voluntarily (the reasons for choosing these three universities will be introduced in 1.3).

The reasons for choosing 4th year students as participants were as follows:

1. 4th year students would have finished their dissertations and internships, and would have time to participate in this project.
2. 4th year students would have a relatively clear idea of their plans after graduation compared to others.
3. The investigation of migration aspirations relies on graduate candidates, which means that 4th year students were the best option.
4. Graduates that have already moved to other places are difficult to contact, since it is difficult to get contact information about graduates after they graduate from universities. Also, when investigating migration aspirations, retrospective investigation can cause retrospective rationalisation, which might have influenced the results.

The pilot study involved 6 students from these three universities (2 from each), based on convenient sampling - the researcher's friends and their friends - who were in their 4th year of study in these target universities. The reason for convenient sampling was based on a pragmatist principle to use fewer resources to gain maximum benefit. Although they are the researcher's friends, the 6 students were from different disciplines and different genders to make sure feedback was relatively comprehensive.

The survey involved 400 students in each of these three universities. Similar to related research in the Chinese context (Song et al., 2014, Zheng and Wu, 2017b, He and Zhai, 2015), the sampling was as follows:

Interviews involved 23 students. Using the contact details from the survey, these participants received an email reminding them about the research project and asking them to take part in an interview voluntarily.

The follow-up online interviews with the 23 participants happened a year after Stage 2. An email or text message was sent to the participants to arrange times for online interviews.

As for participant recruitment, as mentioned above, participants were 4th year students from three target universities in Wuhan, China. The recruitment strategy included three parts: administrative contact, through student organisations, and an “Exponential non-discriminative snowball sampling” strategy (which means the first subject recruited to the sample group provides multiple referrals. Each new referral is explored until primary data from a sufficient number of samples are collected). (Dudovskiy, 2016))

Survey sampling technique

In order to get more comprehensive data from these three target universities, the researcher tried three different strategies.

The first, and most efficient, way was to contact the administrative offices by email, then apply stratified random sampling. This method makes sure questionnaires are equally distributed to each school. However, this method failed in all three universities since the administrative office did not respond to the official email sent from the researcher’s university email address. The other difficulty that lowered the probability of realising this strategy was that none of the target universities have an official university email system for their students, which meant that trying to contact individual students through email from top to bottom was almost impossible.

The second method for data collection was snowball sampling. Snowball sampling is another form of non-probability sampling and is commonly used in the social science research field when participants are hard to find or contact.

“A sampling procedure may be defined as snowball sampling when the researcher accesses informants through contact information that is provided by other informants. This process is, by necessity, repetitive: informants refer the researcher to other informants, who are contacted by the researcher and then refer her or him to yet other informants, and so on.

Hence the evolving ‘snowball’ effect, captured in a metaphor that touches on the central quality of this sampling procedure: its accumulative (diachronic and dynamic) dimension.” (Noy, 2008, p. 330)

In order to cover as many varieties of respondents as possible, the researcher tried to distribute questionnaires to as many schools within the universities as possible. While posting advertisements on social media and different chat groups, the researcher also asked participants to pass on the advertisement for the survey on their social media and other chat groups, so that they might attract more target students for the survey. However, the snowball sampling in the very early stages was not as effective as the researcher expected. The response rate was quite low and recruitment was relatively slow. Therefore, the researcher contacted some of the participants from CCNU who won a prize in the raffle of the survey stage, and asked them if they would like to distribute a paper-based questionnaire to students living in the same dorm (since undergraduate students usually live in the same dorm with students that are on the same course). The result of this method turned out to be more effective than simple snowball sampling, with many more respondents from different schools. Moreover, the potential shortcoming of participants all coming from within one social network was avoided.

In addition, the researcher tried to get in touch with management layer teachers (administrators in universities that usually manage work with student affairs) from the three target universities through social connections. It is a common situation in the Chinese context that “the more social relationships you have with the management layer of your research object, the easier it is to pass through the gateway”. This strong effect of social capital and social relationships was also emphasised by participants in the following study. Through the relationship between the researcher’s family and the management layers in these three universities, the researcher requested that the rest of questionnaires be distributed

to as many schools in the three target universities as possible, since academic discipline was considered as the only controllable variable in the questionnaire collecting stage. However, because the data collection was during graduation season, not all the schools were able to respond to the survey. By the end of the survey stage, the questionnaire was distributed to most of the schools and got respondents from 18 (out of 24) schools from CCNU, 14 (out of 25) schools from WUT, and 11 (out of 15) schools from HIFA.

3.3.4 Geographical location/time period

- Central China Normal University (CCNU - a comprehensive university with a large percentage of females).
- Wuhan University of Technology (WUT - a technology university with a large percentage of males, located near CCNU) / Huazhong University of Science and Technology (“Huazhong” means “Central China” in Chinese).
- Hubei Institute of Fine Arts (HIFA - the only “institution of fine arts at the level of discipline and multiple academic degrees” in central China) / Wuhan Conservatory of Music (WCM - the only independent music college in central China).

The reason for choosing to research these three key universities in Wuhan were as follows:

First of all, the city where these universities are located - Wuhan - is the most central and the biggest city in Central China, and has had the largest population of university students in Central China since the 2000s. According to a report by the Wuhan Statistics Bureau, this number was more than 1’183’300 in 2013, making Wuhan’s higher education institution student population one of the largest worldwide, and this population continues to show a

growing trend. The huge population of higher education institution students and huge number of Higher Education Institutions made this city an excellent case for this research.

Second, this city has the only “institution of fine arts at the level of discipline and multiple academic degrees” and the only independent music college in Central China, which gave the researcher another strong reason to carry out research in this city.

Third, various migration policies have been implemented in Wuhan, which means the government of China has already found the outward migration trend of graduates to be of concern, and has already made efforts to solve this problem.

Finally, the researcher was born and grew up in this city, and graduated from one of these universities, making it easier for the researcher to access data and recruit participants. With this advantage, the researcher could save funds that might be spent on travelling and other costs. The researcher’s familiarity with study and graduation in Wuhan, and their position as a government funded researcher from University of Glasgow, made it possible for the researcher to investigate this project from the perspective of both “insider” and “outsider”.

This research lasted from January 2018 to January 2022, data collecting and analysis took place from December 2018 to March 2019. According to university calendars from the target universities, this is the period that most of the 4th year students finished their internships and were getting ready for bachelor dissertations. This meant that students would be on campus, and would have relatively flexible time to participate in this research.

3.3.5 Ethical considerations

The research ethics risk was low in this research. Respondents were over 18 and did not fall within any vulnerable groups. The researcher did not interview people who may be considered at risk, and there was no dependent relationship between them. The plain language statement made it clear that involvement in the project was entirely voluntary and

no participant was disadvantaged by taking part. The focus of the research is on exploring the influences on university graduates as they decide whether to stay or migrate to another part of China.

That said, there are always risks when interviewing, because people can become upset if questions trigger painful thoughts or memories, even when, as in this research, the questions were not about personal issues. In anticipation of this potential, however unlikely, the contact details of counsellors was made available to interviewees at the time of the interviews.

As for data protection, all non-research data was scanned and stored electronically in a hard-drive with a password. Original paper data was destroyed by paper shredder or destructor. 10 years after the project finishes, electronic data will be deleted by formatting the hard-drive.

3.3.6 Potential limitations

- a) The researcher was initially going to do a follow-up study, but it is very time consuming and quite unrealistic due to the time limitations of the PhD programme, therefore the researcher left space to do the follow-up study in the future.
- b) There will be a large number of possible designs for the same research question and this might lead to various results and conclusions. As Johnson and Onwuegbuzie (2004) claimed, some of the details of mixed research remain to be worked out fully by research methodologists (e.g., problems of paradigm mixing, how to qualitatively analyse quantitative data, how to interpret conflicting results). How can the researcher make sure this research design is a relatively suitable and sensible way of answering the research question?
- c) The large amount of data and the complexity of data analysis might be time consuming and could make it difficult to give in-depth results.

- d) It is difficult to get in touch with policy makers in China, due to the specific polity in China. Therefore, it is difficult to get to know how the structural factors impact graduates from a policy making perspective.

- e) The participants in the interviews might have been pre-selected, since a personality factor is also involved in migration decision making, and whether an individual is adventurous or not will influence their migration pattern. However, in this research, it was impossible to interview students who were shy and introverted, and were not willing to talk or participate. This led to a possible bias where the explanation of personality factors is not comprehensive enough. Fortunately, the interviews are combined with a survey in this research, and this decreases the negative effect of this limitation.

Chapter 4

Nature of Data

In the last few chapters, the related literature has been reviewed and the data collection process has been introduced. In this chapter, the data used in this study will be introduced. This chapter will present the types of data that have been collected as part of this research project, descriptive results from the survey and interview stages, and sampling strategy.

4.1 Data and data analysis

As mentioned in the last chapter, the research design is composed of a survey and interviews, so this chapter will present these two types of data, that have been collected from fieldwork separately. In total there were 957 valid respondents in the survey, and 23 interviews that took place. All of the data were collected from three target universities located in Wuhan (in Hubei, Central China).

The reasons for selecting Wuhan, Hubei can be clarified from four perspectives. Firstly, Wuhan implemented a famous and important policy aimed at retaining higher education institution graduates under the name of “Millions of College Students' Entrepreneurship and Employment Program in Wuhan” (Deng, 2018) in 2017. This is a unique factor that might influence graduate migration intentions and aspirations. Similar policies have been implemented in different areas within Central China. Amongst all these provinces, Hubei is an excellent example of implementing graduate retention policies. In June 2017, the Wuhan government announced a new series of policies including releasing residential registration policies, preferential housing policies, preferential policies for entrepreneurship, etc. In

October 2017 the Wuhan government upgraded and added new content to the project. (The State Council of the People's Republic of China, 2017)

Secondly, Wuhan is the capital city of Hubei, and has a relatively high number of higher education institution graduates when looking at the 6 provinces in Central China. In 2017 this number was 394,423 according to the Hubei Statistical Yearbook 2018 (Hubei Provincial Bureau of Statistics, 2018), while 4 of the remaining 5 provinces in Central China were 210,429 (Shanxi), 322,800 (Anhui), 332,792 (Hunan), 332,800 (Jiangxi) (National Bureau of Statistics of China, 2018). The only province that has a greater number of Higher Education Institutions and graduates is Henan, which is to the north of Hubei. It had 134 Higher Education Institutions and 504,100 graduates in 2017. However the variety of institutions is slightly less than Hubei - Central China's only independent art college (Hubei Institute of Fine Arts/HIFA) and independent music conservatory (Wuhan Conservatory of Music) are located in Wuhan. Henan also has only one university that is included in the 'Project of National Key Universities and Colleges' and is regarded as a 'Double Top University'² Also known as 'Double First Class University'. With the aim of developing world-class higher education institutions and disciplines, the Ministry of Education, the Ministry of Finance and National Development and Reform Commission of the PRC jointly released a "Double Top" plan, which took the place of the old '985 plan' and '211 plan' in

² Also known as 'Double First Class University'. With the aim of developing world-class higher education institutions and disciplines, the Ministry of Education, the Ministry of Finance and National Development and Reform Commission of the PRC jointly released a "Double Top" plan, which took the place of the old '985 plan' and '211 plan' in 2017. This plan included 36 Class A Universities, 6 Class B universities and 95 'Double First Class' disciplines universities. *THE MINISTRY OF EDUCATION OF THE PRC 2017. Notice from the Ministry of Education and other national governmental departments announcing the list of 'Double First Class universities and disciplines'. In: EDUCATION, T. M. O. (ed.). the Ministry of Education, the ministry of finance, National Development and Reform Commission, .*

In this research, CCNU and WUT are included in the 95 'Double First Class' disciplines universities.

2017. This plan included 36 Class A Universities, 6 Class B universities and 95 ‘Double First Class’ disciplines universities.) , while there are 7 of these in Hubei.

Thirdly, as Wuhan is the capital city of Hubei, it aggregates capital within the province, and has the greatest number of Higher Education Institutions and higher education institution students. In 2017 there were 84 Higher Education Institutions and 947,651 students (Wuhan Bureau of Statistics, 2018) while Zhengzhou - the capital city of Henan - had 61 and 935,332 respectively in 2018 (Zhengzhou Bureau of Statistics, 2018). The more concentrated Higher Education Institutions are, and the more variety in Higher Education Institutions located within a city, the easier it is for the researcher to recruit participants and collect more representative data in a limited time period.

Fourthly, from a more practical perspective, all of the researcher’s social capital is centred in Hubei, and so in order to increase the likelihood of passing through the gateways of Higher Education Institutions, Wuhan was chosen as the city for the fieldwork.

Within Wuhan, three Universities were selected as target universities. These universities were considered representative among Higher Education Institutions that are accessible for the researcher. They are Central China Normal University (CCNU), Wuhan University of Technology (WUT) and Hubei Institution of Fine Art (HIFA). All of these universities are public universities, which means that they are governed and funded by the local government. This is the norm for universities in China. These are three typical universities that represent the most common types of universities in China.

The reasons for choosing these three Higher Education Institutions are as follows (Table 1).

Table 4.1.1. List of Higher educational Institutions in the Research.

	<ul style="list-style-type: none"> ● A comprehensive university (Normal University)
	<ul style="list-style-type: none"> ● A large percentage of females
<i>CCNU</i>	<ul style="list-style-type: none"> ● Contains teacher education programs and a considerable number of pre-service teachers
	<ul style="list-style-type: none"> ● 'Double Top University'³
	<ul style="list-style-type: none"> ● A technology university
	<ul style="list-style-type: none"> ● A large number of graduates every year (over 9000 in 2017 (Wuhan University of Techonology, 2018))
<i>WUT</i>	<ul style="list-style-type: none"> ● A large percentage of males
	<ul style="list-style-type: none"> ● 'Double Top University'
<i>HIFA</i>	<ul style="list-style-type: none"> ● The only "institution of fine arts at the level of discipline and multiple academic degrees" in Central China

After clarifying the rationale for choosing the location and Higher Education Institutions for fieldwork, it is essential to present the data and the collection process. In the following few

³ Also known as 'Double First Class University'. With the aim of developing world-class higher education institutions and disciplines, the Ministry of Education, the Ministry of Finance and National Development and Reform Commission of the PRC jointly released a "Double Top" plan, which took the place of the old '985 plan' and '211 plan' in 2017. This plan included 36 Class A Universities, 6 Class B universities and 95 'Double First Class' disciplines universities. *THE MINISTRY OF EDUCATION OF THE PRC 2017. Notice from the Ministry of Education and other national governmental departments announcing the list of 'Double First Class universities and disciplines'. In: EDUCATION, T. M. O. (ed.). the Ministry of Education, the ministry of finance, National Development and Reform Commission, .*

In this research, CCNU and WUT are included in the 95 'Double First Class' disciplines universities.

sections, information related to the questionnaire, the nature of empirical data, and interview components will be presented.

4.2 survey stage

Questionnaire design

The key information derived from the survey is information on graduates' migration aspirations, abilities, and the factors that might influence or shape these aspirations and abilities. The questionnaire was designed based on multiple theoretical frameworks, and referred to related studies such as a large-scale questionnaire survey on graduates nationwide by the Institute of Economics of Education (IEE), Peking University in June 2015. The original questionnaire designed by the IEE itself is not accessible, so this questionnaire was designed based on the results that the IEE published in 2016 (Yue and Li, 2016).

The research conducted by Yue and Li (2016) was also based on mainstream theories in the interregional migration research field. These included human capital theory and social capital theory, which were considered internal motivation for interregional graduate migration; and the expected income theory and push and pull theory, which were considered as external motivation for interregional graduate migration (Yue and Li, 2016).

Based on this research, the questionnaire combined different theories and is divided into five major parts (Table 5).

Table 4.2.1. Questionnaire design.

Section title	Component
----------------------	------------------

<i>Basic personal information</i>	Gender, ethnic group, Hukou type (rural/urban), educational background, disciplines, etc
<i>Migration aspirations and intentions</i>	Location of origin, previous migration experience, preferred location, career choice, factors that influenced migration intentions, social network in destination region, etc.
<i>Personal experience and family information</i>	Academic performance in higher education institution, personal development experience, political status, household income, original housing type, parental occupation and educational background, strength of family social relations, etc.
<i>Policy factors</i>	Popularity of graduate retention policies, perspectives on these policies, ways of obtaining information, etc.
<i>Personal traits</i>	Traits related to personality

This questionnaire was also inspired by an emigrant aspiration survey that was run by OECD (2015). Content included not only personal information, but also information related to

future plans after graduation, attitudes towards migration aspirations, current and potential ability to move, opinions about different places, etc.

The rationales for considering the political status of the students themselves and their parents are different.

Student CCP member is a specific definition, where selected elite students from Higher Education Institutions are able to become student CCP members, according to the Constitution of the Communist Party of China. These students are identified as both party members and higher education institution students. There are two different types of student CCP members: full member of the party, and probationary party member. The selection of student CCP members will consider four main aspects of candidates: political caliber, academic performance, working competence, and mass foundation (which represents whether or not this person is supported by others). After several rounds of selection and competition among applicants, there are a limited number of elite students that are able to become student CCP members. Therefore, in this research, a student's political status also acts as a human capital indicator in the Chinese context.

For parental political status, this might be used as an indicator related to social class and family background, since political status is closely related to occupations within the system (i.e. in jobs related to the state system, like government officials and state owned institutions, the percentage of CCP members is significantly higher). Political status may simply act as political status, but might also indicate family social status.

Data

Survey data was collected during spring 2019. 1200 questionnaires were sent to 4th year students (graduate candidates) in three target universities for the year 2019. By the end of

this stage, 970 responses were collected, with 14 respondents excluded due to incomplete questionnaires. The number of valid responses was 957. The response rate was 87%.

The questionnaire included not only information about where exactly these students intended to go after they graduated, but also where they originally came from, their HUKOU status and the type of both destination region and original domicile. This helped redefine and classify respondents in terms of their spatial mobility.

In sum, the respondents from three target universities were distributed as follows (Table 3).

61.7% of the respondents were female, due to the gender imbalance of these Higher Education Institutions. According to a university employment report from key universities in 2017, the proportion of female graduates in CCNU (bachelor degree) was 73.49% (3240 in total), while this proportion was 68.77% in HIFA (1306 female graduates). This proportion was 29.87% in WUT (2723 female graduates), which is much lower than CCNU and HIFA. This research also included 7.2% ethnic minority students.

Based on the classification of sequential migration behaviour before and after university suggested by Faggian et al. (2006), the researcher also classified these potential migrants into 5 distinct migration types:

(Potential) Repeat Migrant.

Potential repeat migrant moves away from their original domicile to the higher education institution location, then has a strong intention of moving again to a region that is different both from the original domicile and the education area to enter employment.

(Potential) Return Migrant

Potential return migrant moves away from their original domicile to the higher education institution location, and then intends to move back to the original domicile to enter employment.

(Potential) Sticker

Potential sticker moves away from their original domicile to the higher education institution location, then has a strong intention of staying in the region where the higher education institution is located to enter employment.

(Potential) Late Mover

Table 4.2.2. Composition of Respondents

		Composition of Respondents							
		Name of Institution and school							
		CCNU		WUT		HIFA		Subtotal	
		Count	Column Valid N %	Count	Column Valid N %	Count	Column Valid N %	Total N	Column Sum %
Gender	Female	214	75.6%	99	33.7%	262	73.4%	575	61.7%
	Male	69	24.4%	193	65.6%	91	25.5%	353	37.5%
	Other	0	0.0%	2	0.7%	4	1.1%	6	0.8%
Ethnic group	Majority (Han)	250	86.8%	268	90.2%	356	95.7%	874	92.8%
	Minority (Other)	38	13.2%	29	9.8%	16	4.3%	83	7.2%
Hukou (permanent residence) type	Urban area	138	48.1%	155	52.2%	292	78.5%	585	66.3%
	Rural area	149	51.9%	142	47.8%	80	21.5%	371	33.7%
Family composition	single child	119	43.3%	143	48.8%	256	70.1%	518	60.0%
	have a sibling/siblings	156	56.7%	150	51.2%	109	29.9%	415	40.0%
Type of Migrant	Repeat migrant	49	17.0%	72	24.2%	21	5.6%	142	12.8%
	Late mover	16	5.6%	31	10.4%	63	16.9%	110	13.4%
	Return migrant	166	57.6%	89	30.0%	80	21.5%	335	29.2%
	Stayer	33	11.5%	54	18.2%	174	46.8%	261	33.2%
	Sticker	13	4.5%	21	7.1%	8	2.2%	42	4.0%
	Other	11	3.8%	30	10.1%	26	7.0%	67	7.5%
	Subtotal		288	100.0%	297	100.0%	372	100.0%	957
Type of Discipline	Liberal arts	127	44.1%	68	22.9%	0	0.0%	195	13.2%
	General science	152	52.8%	218	73.4%	0	0.0%	370	29.4%
	Creative arts	6	2.1%	8	2.7%	372	100.0%	386	57.0%
	PE	3	1.0%	0	0.0%	0	0.0%	3	0.2%
	Other	0	0.0%	3	1.0%	0	0.0%	3	0.3%
	Subtotal	288	100.0%	297	100.0%	372	100.0%	957	100.0%

*Missing values have been excluded.

Potential late mover remains in the domicile area for higher education, but intends to move to a different area to enter employment.

(Potential) Stayer

Potential stayer remains in their original domicile region for both higher education and employment.

The 'other' refers to students who show intentions of staying overseas or have not had any migration intentions yet.

In this research, students' original domiciles were expressed by city and province, but when defining potential type of migrants, the administrative boundary line which defines provinces within China is also used as the boundary of defining migration behaviour. It is shown in the above table that the percentage of *Stayer* and *Sticker* is 35.2% in total. This seems to be a relatively high percentage. However, the problem of this classification is also obvious: the internal migration within provinces - especially rural-urban migration and low tier-high tier city migration - is incidentally ignored. Therefore, the researcher will also introduce rural-urban migration variables, and migration on a larger scale (Western – Central – Northeast – Eastern China) in the following chapters.

The disciplines of participants were classified into liberal arts (LA), general science (GS), creative arts (CA) and physical education (PE). This is due to the specific context of the Chinese education system, which divides students from secondary education into four different disciplines. Also, college and university admissions have a bulwark between subjects, which means students from different disciplines take separate exams in the higher education entrance exam and are only allowed to apply for limited subjects in Higher Education Institutions within their disciplines. Overall, in this project, 57% students were

from CA, since all of the participants from HIFA majored in CA. 29.4% participants majored in GS, and 13.2% were from LA.

Amongst all the students that took part in the survey, 55.6% intended to find a job/work immediately after graduation, while 31.6% chose postgraduate education in China. A small percentage of students (7.4%) intended to go abroad for further education. Other choices included self-employment (2.7%), and taking some time out (1.6%). A few students (1.1%) did not yet have any plans about their future.

As for household income, this question had the lowest response rate (68.7%). It was made clear that housing income included parental monthly salaries and other investments (such as funds and stock, immovable property or rent), but 300 students in the survey chose 'I don't know or choose not to say' in response to this question. This might be due to the complexity of calculating monthly household income.

4.3 interview stage

Interview structure design

The interview stage took place right after the survey. This stage took around three months and 23 participants were involved. Each interview took about 45 minutes, although depending on the participant's personality, there were interviews that took as long as 2 hours. The topics of the interview were related to the participant's personal experiences, their opinions of, and values relating to, the graduate migration phenomenon in Central China, their own future plans, their understanding of migration retention policies that have been implemented in Wuhan, etc. (details are shown below). No questions considered sensitive were included.

Table 4.3.1. Structure and questions of the interviews.

Theme	Key Questions
<p><i>Personal information</i> <i>(this was interspersed throughout the whole interview and was checked briefly at the beginning of the interview)</i></p>	<ul style="list-style-type: none"> • Original domicile • Gender • Social class • Family information • Previous migration experience • Ethnicity • Discipline
<p><i>Previous experiences</i></p>	<ul style="list-style-type: none"> • Why did you choose to study in Wuhan (Central China)?
<p><i>Migration intention</i></p>	<ul style="list-style-type: none"> • How do you feel about studying in Wuhan? • What are your future plans and where is the ideal destination for you?
<p><i>Factors that influenced this intention (why)</i></p>	<ul style="list-style-type: none"> • What do you think shaped your migration intention? • Have you thought about going to Tier 2 or Tier 3 cities (relatively smaller cities or towns)? Have you thought about staying in Central China? Why? Why not? • What did you find most helpful when you decided to go to this region after graduating?

Opinions about where and why graduates migrate

- Where do graduates migrate to most?
- Why do they migrate to these places?
- Is there gender disparity/social class disparity/discipline disparity etc. in this tendency?

Opinions about graduate retention policies in Central China

- Do you know about them or not?
- Do they influence your location choice?
- Why/why not?

Opinions about the job searching process

- Influenced by social capital or human capital?
 - Questions related to career consultation
-

Compared to questions that were asked in the survey stage, the researcher was trying to focus more on the participants' understanding of, and meaning given to, migration in the interview stage. In other words, what does migration really mean to them, and how do they value migration from a life course perspective? Through these conversations, the researcher DID find a significant difference between what different participants meant and what they filled in in the questionnaire, as well as getting new perspectives on the numerical data analysis.

component of participants

In the interview stage, the researcher applied multiple sampling techniques, but mostly applied Judgement Sampling and Theoretical Sampling, using participants' genders, disciplines, migration intentions and other characteristics to select 23 interviewees to maximum variation. These traits are based on theoretical constructs and the Chinese context. The basic information about interview participants is shown in the following Table 6.

Table 4.3.2. Interviewee information.

Name	higher education institution	Gender	Discipline	Future Plans	Migrant type	Region of origin	Region of destination	HUKOU type
Ariel	CCNU	Female	Education	Work	Repeat migrant	Henan (Luoyang) (Central China)	Zhejiang (Hangzhou) (Eastern China)	Urban
Rachel	CCNU	Female	Education	Study abroad	Late mover	Hubei (Xiaogan) (Central China)	Shanghai (Eastern China)	Urban
Jane	CCNU	Female	Education	Further education in China	Stayer	Hubei (Wuhan) (Central China)	Hubei (Wuhan) (Central China)	Rural
Lew	CCNU	Male	Computer science	Work	Late mover	Hubei (Wuhan) (Central China)	Zhejiang (Hangzhou) (Eastern China)	Urban
Allen	CCNU	Female	Foreign languages	Work	Return migrant	Hebei (Xinji) (Eastern China)	Hebei (Xinji) (Eastern China)	Urban
Song	CCNU	Female	Law	Further education in China	Repeat migrant	Sichuan (Leshan) (Western China)	Beijing (Eastern China)	Urban

Jenny	CCNU	Female	French	Study abroad	Repeat migrant	Anhui (Tongling) (Central China)	Shanghai (Eastern China)	Rural
Anna	CCNU	Female	Mathematics	Work	Repeat migrant	Shanxi (Lvliang) (Central China)	Shandong (Qingdao) (Eastern China)	Rural
Max	HIFA	Male	Animation	Work	Late mover	Hubei (Xiangyang) (Central China)	Hebei (Shijiazhuang) (Eastern China)	Rural
Frank	HIFA	Male	Animation	Other	Stayer	Hubei (Xianning) (Central China)	Hubei (Wuhan) (Central China)	Urban
Lulu	HIFA	Female	Environmental Art Design	Work	Stayer	Hubei (Jingzhou) (Central China)	Hubei (Central China)	Rural
Lue	HIFA	Female	Fashion design	Work	Repeat migrant	Jiangsu (Lianyungang) (Eastern China)	Shanghai (Eastern China)	Urban
Sue	HIFA	Male	Water colour	Further education in China	Other	Hubei (Wuhan) (Central China)	Haven't decided yet	Urban
Panda	HIFA	Male	Oil Painting	Work	Late mover	Hubei (Huangshi) (Central China)	Zhejiang (Hangzhou) (Eastern China)	Urban
White	HIFA	Female	Fashion design	Work	Return migrant	Guangdong (Shantou) (Eastern China)	Guangdong (Guangzhou) (Eastern China)	Rural

Zhuorya	HIFA	Male	Mural and Integrated Materials Painting	Work	Repeat migrant	Guangxi (Dongxing) (Western China)	Guangdong (Shenzhen) (Eastern China)	Urban
Zoe	WUT	Female	Material science and Engineering	Further education in China	Sticker	Ningxia (Shizuishan) (Western China)	Hubei (Wuhan) (Central China)	Urban
Eutyclus	WUT	Male	Information Engineering	Study abroad	Repeat migrant	Xinjiang (Kuerle) (Western China)	Jiangsu (Suzhou) (Eastern China)	Urban
Gus	WUT	Male	Information Engineering	Work	Return migrant	Tianjin (Eastern China)	Tianjin (Eastern China)	Urban
Kenneth	WUT	Male	Law	Work	Return migrant	Zhejiang (Hangzhou) (Eastern China)	Zhejiang (Hangzhou) (Eastern China)	Urban
Tom	WUT	Male	Mechanical and Electrical Engineering	Further education in China	Repeat migrant	Shanxi (Linfen) (Central China)	Shanghai (Eastern China)	Urban
Sam	WUT	Male	Mechanical and Electrical Engineering	Further education in China	Stayer	Hubei (Wuhan) (Central China)	Hubei (Wuhan) (Central China)	Urban
Jaimee	WUT	Female	Law	Work	Repeat migrant	Hebei(Shijiazhuang) (North-East China)	Beijing (Eastern China)	Urban

Chapter 5

Where do graduates intend to go? What factors influenced their migration aspirations most?

5.1 Introduction ‘Understanding the factors that attract people to move to different places is pivotal for scholars of regional science and has consequently stimulated a great deal of debate and empirical studies.’ (Niedomysl et al., 2010, p. 1636) However, in this research, understanding the factors that motivate people’s migration aspirations is, to some extent, at the same level of importance as the actual migration behaviour that might happen subsequently. As has been pointed out by some scholars, assessing the costs and benefits in actual revealed migration behaviour is not sufficient for migration research - there are demands that remain unfulfilled, which are still considered part of the migration process, and should not be ignored. (Carling and Schewel, 2018) The strategy of analysing data related to migration aspirations can also be similar to analysing the data of revealed migration activities, since the key issue here is to make a relatively clear description of the potential migration trends and then analyse the factors that drives these migration aspirations. For example, the research by Carling and Schewel (2018) using their two-step model of migration started from mapping migration aspirations on a world map in order to capture the general trends of migrant destination choices. Similarly, in this research, the descriptive analysis used chord diagrams and maps of mainland China to describe students’ migration intentions and to see if there was any geographical aggregation in their potential migration choices. For instance, for students facing their first employment, their migration choice is actually not their first migration decision, but their second, since the migration from original

domicile to the location of higher education institution took place before that. (Faggian et al., 2006) In order to investigate a student's home-university-job sequential migration, this research, similar to Faggian, also categorised students into five types based on their intentional destination.

This chapter analyses data collected from a survey around two key questions: Where do graduates intend to go? What factors influenced their migration aspirations most? Firstly, descriptive analysis is done to visualise graduates' migration intentions based on their destination choices, and to present the composition of the respondents while figuring out preliminary results for use in logistic regression. Secondly, since the main aim of this research is to investigate the brain drain issue in Central China, the best way is to compare differences in terms of the characteristics of students who intend to stay where their higher education institution is located and students who intend to move somewhere else, while also investigating differences in terms of the way that students value different factors related to regional attractiveness. The best way of approaching this aim is binary logistic regression, categorising respondents into 'potential stayers (students who chose to stay in Wuhan)' and 'potential outward migrants (students who chose to outward migrate)'. This binary variable was used as a dependent variable to examine the different importance levels of different factors that influence graduates' migration aspirations. Since the survey in this research is relatively comprehensive and contains a large number of variables, the selection of factors is, firstly, based on existing interregional migration research, and also comes from the results of descriptive analysis in this chapter.

5.2 Descriptive analysis

In the survey (see Appendix 3) carried out for the study, the researcher collected data related to a few main dimensions of the survey participants, including personal information, education information, original domicile, migration choices, factors, human capital, social capital and background. In this section, descriptive analysis of the data will be presented.

Composition of respondents

The composition of respondents based on individual information is shown in the table below.

Table 5.2.1. composition of respondents.

		Count	Subtable N %
Gender	Female	575	61.6%
	Male	353	37.8%
	Other	6	0.6%
Ethnic group	Majority (Han)	874	91.3%
	Minority (Other)	83	8.7%
Hukou (permanent residence) type	Urban area	586	61.3%
	Rural area	370	38.7%
Family composition	single child	518	55.5%
	have a sibling/siblings	415	44.5%
Name of Institution and school	CCNU	288	30.1%
	WUT	297	31.0%
	HIFA	372	38.9%
Type of Discipline	Other	3	0.3%
	Liberal arts	195	20.4%
	General science	370	38.7%
	Creative arts	386	40.3%
	PE	3	0.3%
Are you a pre-service teacher?	Yes, I am.	143	49.7%
	No, I'm not.	145	50.3%
Are you in a romantic relationship currently?	Yes.	263	27.5%
	No.	598	62.5%
	Choose not to say	96	10.0%

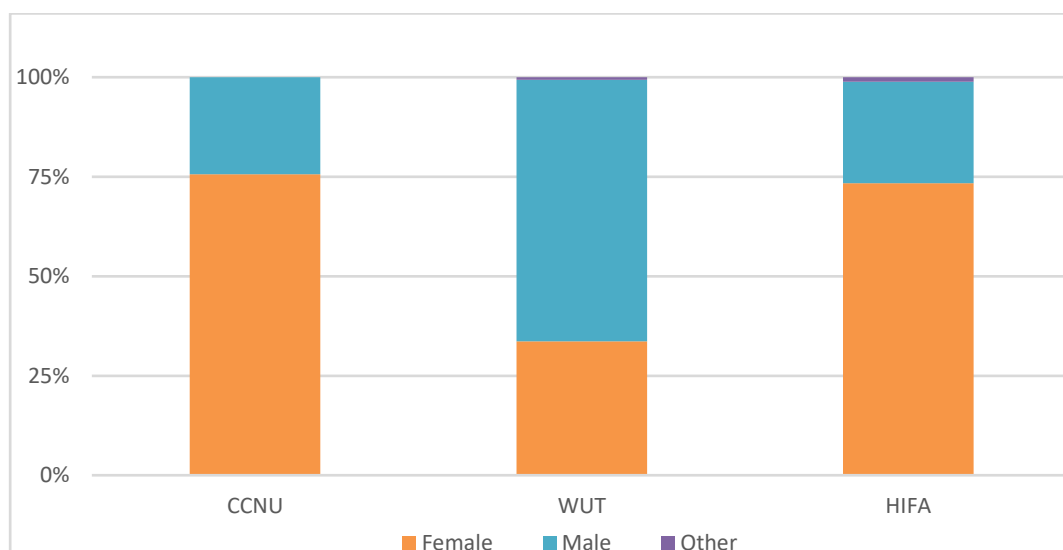
Among 934 valid respondents who answered gender related question, 61% were female. The cause for this imbalance is the gender imbalance in the three target universities, according to their nature. In 2017, the percentage of female CCNU graduates was 69.66%, female WUT graduates was 31.43%, and female HIFA graduates was 68.77% (Wuhan University of Technology, 2018, Hubei Institution of Fine Art, 2018, Central China Normal University, 2018). Since the sampling in this research covered the majority of the schools in these universities, this situation is also reflected in the survey.

Table 5.2.2. Gender Proportion in Three Target Higher Education Institutions.

	CCNU	WUT	HIFA
Female	75.62	33.67	73.39
Male	24.38	65.65	25.49
Other	0	0.68	1.12

Figure 5.2.1. Gender Proportion in Three Target Higher Education Institutions.

⁴ PE: physical education



Discipline types were based on the higher education institution school respondents were in, categorised into general science, liberal arts, fine art and PE.

CCNU, as a normal university, has a particularly large percentage of majors related to teacher education, so the information related to pre-service teachers is also included. Nearly 50% of the respondents from CCNU were pre-service teachers.

General trends in the migration intentions of graduates

The main purpose of this survey is to analyse the trends of graduate migration intentions, and the factors that influenced their migration. Based on the data, it is apparent that students' destination choices tend to favour certain areas within China. In order to present an accessible overview of the complex interregional migration aspirations, the researcher also visualised potential migration flow based on the data collected from respondents.

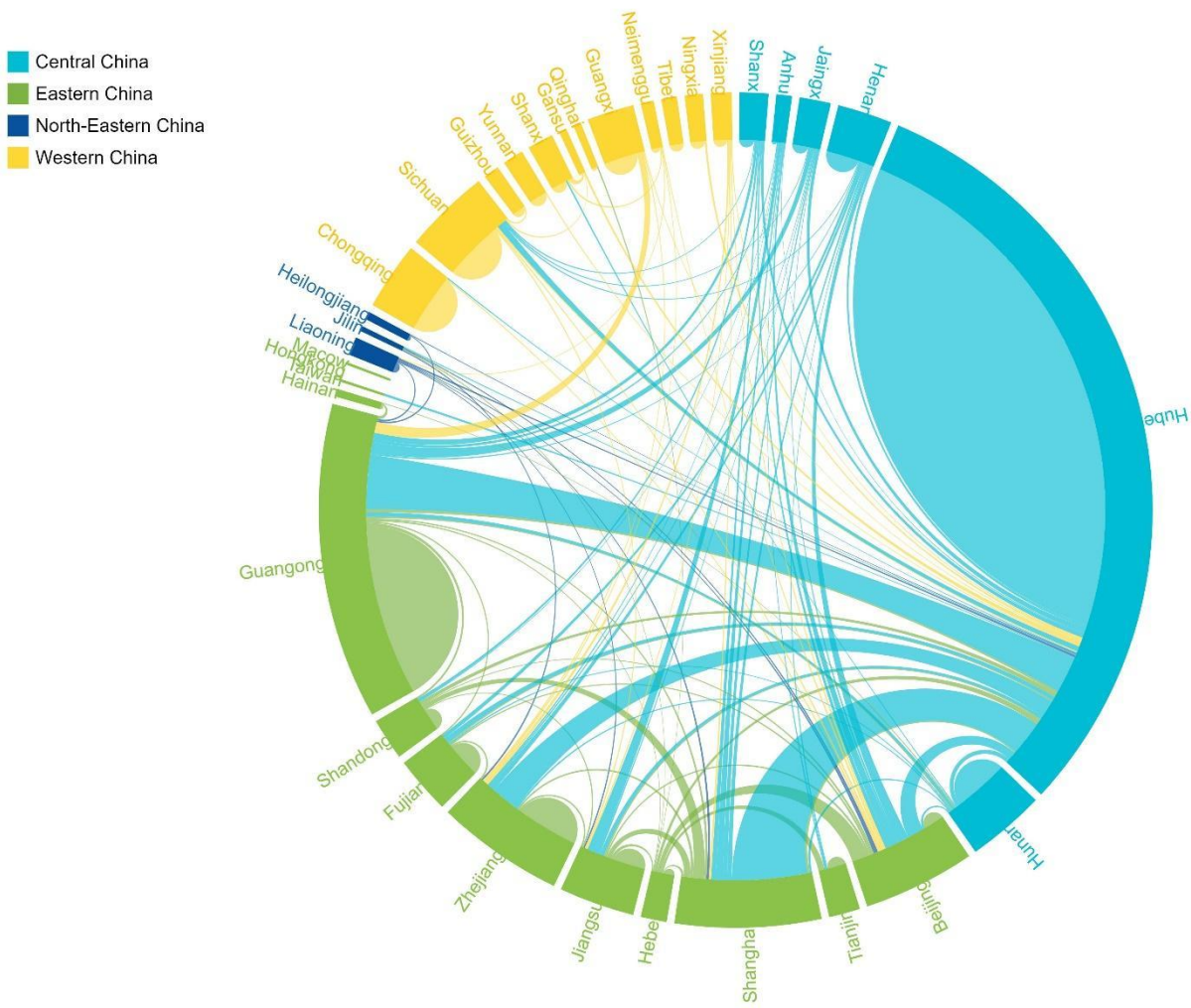
Similar to the successful data visualisation of migration flows in China carried out by Qi et al. (2017), the researcher also used an adapted chord diagram plot to visualise the complex interregional migration of graduates in the survey, using the Charticulator data visualisation tool. Each chord of the diagram starts from the region of origin and goes towards the potential region of the destinations for long-term living after graduation, based on the

variables REG_ORI for region of origin, and REG_DES_LIVE for region of destination. The colour of the flow represents the students' regions of origin, and shows the direction of the potential flow of respondents. Each section on the outer circle represents a province, with the width of the fragments on the outer circle and the number showing potential graduate distribution after graduation in terms of their destinations. Thirty four provinces and areas are sorted into four colours according to the four major economic regions: Eastern China, Central China, Western China, and North-Eastern China.

The plot developed from the survey data highlights that the three largest outward potential flows among respondents were from Hubei province to Guangdong province with 35 respondents reporting this migration intention; from Hubei province to Shanghai city with 33 respondents; and from Hubei province to Zhejiang province with 17 respondents.

The Net_migration variable refers to the difference between num_des (potential number of students in each province) and num_ori (number of students in each province based on their original domicile). Introducing the Net_migration variable helps in understanding the popular destination provinces. The top five provinces were Guangdong, Shanghai, Beijing, Zhejiang and Jiangsu (five Eastern provinces), with net inward migration of 56, 55, 38, 29 and 11. The top sending provinces were Hubei, Anhui, Hebei, Jiangxi and Henan (all Central China provinces except Hebei, which belongs to Eastern China), with net outward migration of 95, 25, 25, 22 and 22. Western and Central China still play the role of talent output, while Eastern China still has significantly larger inward migration flow.

Figure 5.2.2. Bilateral migration destinations of higher education institution students in three target Universities



It has been found that local students have the highest rate of entering local Higher Education Institutions. In this research, 397 (41%) of students were originally from Hubei.

After categorising respondents into five different potential migrant categories based on their migration intentions (Faggian et al., 2006), the most significant pattern is that potential return migrants are still the majority, with over 35% among 975 respondents. This represents a strong intention for graduates to return to their province of origin after graduation. The second biggest trend (27%) is stayers, which describes students originally from Hubei province who intend to stay in Hubei province after graduating from Higher Education Institutions in Wuhan. Only 4.4% were categorised as stickers, meaning that there are relatively few students who come from other provinces to study in Hubei and intend to stay in Hubei.

Table 5.2.3. Type of Migrant

		Type of Migrant			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Other	67	7.0	7.0	7.0
	Repeat migrant	142	14.8	14.8	21.8
	Late mover	110	11.5	11.5	33.3
	Return migrant	336	35.1	35.1	68.4
	Stayer	260	27.2	27.2	95.6
	Sticker	42	4.4	4.4	100.0
	Total	957	100.0	100.0	

Potential type of migrant based on their migration aspirations.

In terms of migration intentions, the researcher made a crosstabulation for migration type and destination choice. The destination types are categorised into Eastern China, Central China, Western China and North-Eastern China. It is shown in the table that a high proportion of potential repeat migrants, late movers and return migrants had intentions of moving to Eastern China. This also suggests the strong attractiveness of Eastern China to

graduates.

Type of Migrant * Region of destinations Crosstabulation

		Region of Destinations					Total	
		Other	Eastern China	Central China	Western China	North-East China		
Type of Migrant	Other	Count	67	0	0	0	0	67
		% of Total	7.0%	0.0%	0.0%	0.0%	0.0%	7.0%
	Repeat migrant	Count	0	127	2	11	2	142
		% of Total	0.0%	13.3%	0.2%	1.1%	0.2%	14.8%
	Late mover	Count	0	101	2	6	1	110
		% of Total	0.0%	10.6%	0.2%	0.6%	0.1%	11.5%
	Return migrant	Count	0	135	76	116	9	336
		% of Total	0.0%	14.1%	7.9%	12.1%	0.9%	35.1%
	Stayer	Count	0	0	260	0	0	260
		% of Total	0.0%	0.0%	27.2%	0.0%	0.0%	27.2%
	Sticker	Count	0	0	42	0	0	42
		% of Total	0.0%	0.0%	4.4%	0.0%	0.0%	4.4%
Total		Count	67	363	382	133	12	957
		% of Total	7.0%	37.9%	39.9%	13.9%	1.3%	100.0%

Table 5.2.4. Type of Migrant* Region of Destinations Crosstabulation

The descriptive analysis of this dataset will be presented by following the structure of the survey in terms of demographic characteristics, human capital factors, social class related factors, and factors that students considered influential in their migration choices.

Demographic proxies

In terms of ethnic group, minority students had strong intentions of return migration, with 59% of minority students belonging to potential return migrants.

However, further data related to ethnic group could not be obtained since questions were not asked in the interview. This remains a limitation for further research.

Table 5.2.5. Ethnic group* type of migrant crosstabulation

		Ethnic group * Type of Migrant Crosstabulation							
		Type of Migrant							
		Other	Repeat migrant	Late mover	Return migrant	Stayer	Sticker	Total	
Ethnic group	Majority (Han)	Count	61	132	104	287	251	39	874
		% within Ethnic group	7.0%	15.1%	11.9%	32.8%	28.7%	4.5%	100.0%
		% within Type of Migrant	91.0%	93.0%	94.5%	85.4%	96.5%	92.9%	91.3%
	Minority (Other)	Count	6	10	6	49	9	3	83
		% within Ethnic group	7.2%	12.0%	7.2%	59.0%	10.8%	3.6%	100.0%
		% within Type of Migrant	9.0%	7.0%	5.5%	14.6%	3.5%	7.1%	8.7%
Total	Count	67	142	110	336	260	42	957	
	% within Ethnic group	7.0%	14.8%	11.5%	35.1%	27.2%	4.4%	100.0%	
	% within Type of Migrant	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

Table 5.2.6. Ethnic group* region of origin crosstabulation

		Ethnic group * Region of origin Crosstabulation					
		Region of origin					
		Eastern China	Central China	Western China	North-East China	Total	
Ethnic group	Majority (Han)	Count	201	547	111	15	874
		% within Ethnic group	23.0%	62.6%	12.7%	1.7%	100.0%
		% within Region of origin	97.6%	95.6%	69.4%	78.9%	91.3%
	Minority (Other)	Count	5	25	49	4	83
		% within Ethnic group	6.0%	30.1%	59.0%	4.8%	100.0%
		% within Region of origin	2.4%	4.4%	30.6%	21.1%	8.7%
Total	Count	206	572	160	19	957	
	% within Ethnic group	21.5%	59.8%	16.7%	2.0%	100.0%	
	% within Region of origin	100.0%	100.0%	100.0%	100.0%	100.0%	

Table 5.2.7. Ethnic group* region of destination crosstabulation

		Ethnic group * Region of destination Crosstabulation						
		Region of destination						
		Other	Eastern China	Central China	Western China	North-East China	Total	
Ethnic group	Majority (Han)	Count	61	343	365	95	10	874
		% within Ethnic group	7.0%	39.2%	41.8%	10.9%	1.1%	100.0%
		% within Region of destination	91.0%	94.5%	95.5%	71.4%	83.3%	91.3%
	Minority (Other)	Count	6	20	17	38	2	83
		% within Ethnic group	7.2%	24.1%	20.5%	45.8%	2.4%	100.0%
		% within Region of destination	9.0%	5.5%	4.5%	28.6%	16.7%	8.7%
Total		Count	67	363	382	133	12	957
		% within Ethnic group	7.0%	37.9%	39.9%	13.9%	1.3%	100.0%
		% within Region of destination	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

From the cross tab, a large percentage of minority students (59%) actually came from Western China. This is consistent with the ethnic distribution of China, with the majority of the 55 minority ethnic groups distributed in Western China.

Secondly, students from different institutions had different migration patterns.

CCNU had the highest return migrant rate (57.6% among all the students from CCNU, and 49.4% among all the potential migrants) and the lowest number and proportion of potential stayers (32, 12.3% among all the students from CCNU, and 49.4% among all the potential migrants). This might be related to the high proportion of pre-service teachers, (143 students, 49.7% of respondents from CCNU), which asks students to sign contracts to work in the education system back in their provinces of origin for a certain number of years after graduation.

Surprisingly, HIFA had the highest number of potential stayers among the three target Higher Education Institutions (174). The number of potential repeat migrants was much lower than the expected count, and also the lowest among the three Higher Education Institutions (21, 5.6% among all the students from CCNU, and 14.8% among all the potential migrants). Meanwhile, the proportion of potential late movers and stickers was relatively

low.

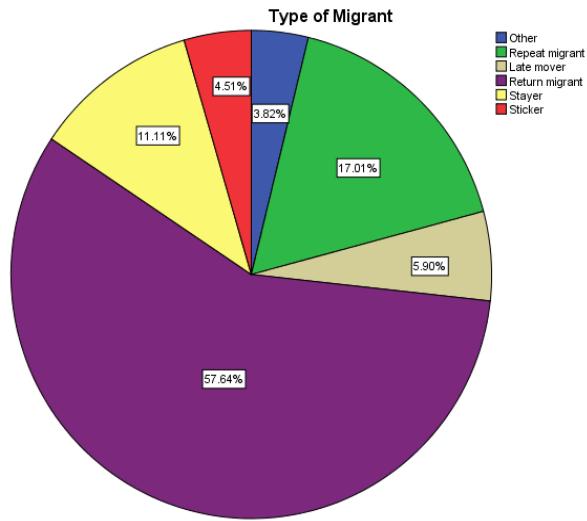


Figure 5.2.3. Type of migrant (CCNU)

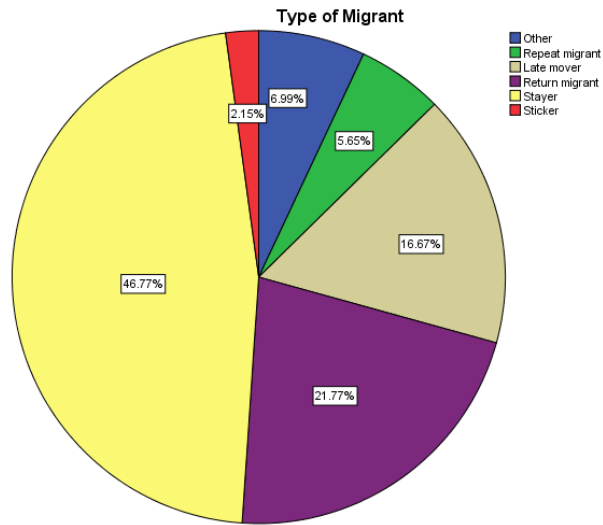


Figure 5.2.4. Type of migrant (HIFA)

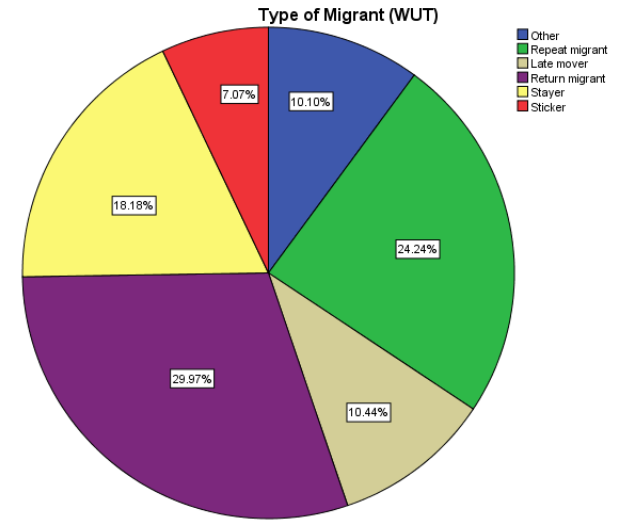


Figure 5.2.5. Type of migrant (WUT)

In terms of destination choices, HIFA had a high proportion (52.7%) of students intending to stay in Central China, and a slightly lower than expected, but still relatively high, proportion moving towards Eastern China (34.9%). WUT had a high proportion of students intending to move towards Eastern China (45.8%), and a relatively lower proportion moving towards Western China or staying in Central China. CCNU students did not seem to be tightly concentrated in terms of their migration destinations, but among students who intended to move towards Western China, 60.2% were from CCNU. (The researcher assumes this is due to the large percentage of pre-service teachers who were asked to move back to their province of origin after graduation, due to their contract).

Table 5.2.8. Name of institution and school* region of destination crosstabulation

			Name of Institution and school * Region of destination Crosstabulation					Total
			Region of destination					
			Other	Eastern China	Central China	Western China	North-East China	
Name of Institution and school	CCNU	% within Name of Institution and school	3.8%	33.7%	32.3%	27.8%	2.4%	100.0%
		% within Region of destination	16.4%	26.7%	24.3%	60.2%	58.3%	30.1%
		% of Total	1.1%	10.1%	9.7%	8.4%	0.7%	30.1%
	WUT	% within Name of Institution and school	10.1%	45.8%	31.3%	11.8%	1.0%	100.0%
		% within Region of destination	44.8%	37.5%	24.3%	26.3%	25.0%	31.0%
		% of Total	3.1%	14.2%	9.7%	3.7%	0.3%	31.0%
	HIFA	% within Name of Institution and school	7.0%	34.9%	52.7%	4.8%	0.5%	100.0%
		% within Region of destination	38.8%	35.8%	51.3%	13.5%	16.7%	38.9%
		% of Total	2.7%	13.6%	20.5%	1.9%	0.2%	38.9%
Total	% within Name of Institution and school	7.0%	37.9%	39.9%	13.9%	1.3%	100.0%	
	% within Region of destination	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
	% of Total	7.0%	37.9%	39.9%	13.9%	1.3%	100.0%	

Table 5.2.9. Name of institution and s school* type of migrant crosstabulation

			Name of Institution and school * Type of Migrant Crosstabulation					Total	
			Type of Migrant						
			Other	Repeat migrant	Late mover	Return migrant	Stayer	Sticker	
Name of Institution and school	CCNU	% within Name of Institution and school	3.8%	17.0%	5.9%	57.6%	11.1%	4.5%	100.0%
		% within Type of Migrant	16.4%	34.5%	15.5%	49.4%	12.3%	31.0%	30.1%
		% of Total	1.1%	5.1%	1.8%	17.3%	3.3%	1.4%	30.1%
	WUT	% within Name of Institution and school	10.1%	24.2%	10.4%	30.0%	18.2%	7.1%	100.0%
		% within Type of Migrant	44.8%	50.7%	28.2%	26.5%	20.8%	50.0%	31.0%
		% of Total	3.1%	7.5%	3.2%	9.3%	5.6%	2.2%	31.0%
	HIFA	% within Name of Institution and school	7.0%	5.6%	16.7%	21.8%	46.8%	2.2%	100.0%
		% within Type of Migrant	38.8%	14.8%	56.4%	24.1%	66.9%	19.0%	38.9%
		% of Total	2.7%	2.2%	6.5%	8.5%	18.2%	0.8%	38.9%
Total	% within Name of Institution and school	7.0%	14.8%	11.5%	35.1%	27.2%	4.4%	100.0%	
	% within Type of Migrant	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
	% of Total	7.0%	14.8%	11.5%	35.1%	27.2%	4.4%	100.0%	

Potential type of migrant.

For original domicile type, the researcher applied the national administrative divisions of China and divided original domiciles into five different categories: village or town in a rural area, county-level city, direct-controlled municipality, autonomous region or special administrative region, and provincial capital.⁵ The crosstabulation of original domicile and

⁵ The administrative divisions of China have consisted of several levels since the ancient era. The People's Republic of China (PRC) administers 34 provincial-level divisions (省级行政区) or first-level divisions (一级行政区), including 22 provinces, 5 autonomous regions, 4 municipalities, and 2 special administrative regions. THE CENTRAL PEOPLE'S GOVERNMENT OF THE PEOPLE'S REPUBLIC OF CHINA 2013. Administrative divisions of China.

In this survey, 'village or town in a rural area' included two administrative divisions in China: Basic level autonomy (5th) and Township level (4th)

Prefectural level divisions or second-level divisions are the second level of the administrative structure. Most provinces are divided only into prefecture-level cities and contain no other second level administrative units.

Counties, formally county-level divisions, are found in the third level of the administrative hierarchy in Provinces and Autonomous regions, the second level in municipalities, and Hainan, a level that is known as "county level" and also contains autonomous counties, county-level cities, banners, autonomous banner and City districts.

Provincial capital refers to the place where the provincial government is located.

type of potential migrant shows that 80% of students from direct-controlled municipalities, autonomous regions or special administrative regions⁶ intended to move back to where they originally came from - which is consistent with the high return migration intention of minority students. This percentage was 40.8% for students from villages or towns in rural areas, and 38.7% for students from prefecture-level cities. Meanwhile, students from rural areas, county-level and prefecture-level cities had a relatively higher percentage of those intending to repeat migrate and stay in Wuhan, and also a large percentage of potential return migrants. For students from provincial capital cities, the percentage of potential stayers was 50%, with 21.6% potential return migrants. This might be related to the high local student enrolment rate of universities.

Table 5.2.10. Type of original domicile* type of migrant crosstabulation

			Type of Migrant						Total
			Other	Repeat migrant	Late mover	Return migrant	Stayer	Sticker	
What is your original domicile type?	Village or town in rural area	Count	9	54	22	106	55	14	260
		% within What is your original domicile type?	3.5%	20.8%	8.5%	40.8%	21.2%	5.4%	100.0%
	County-level city.	Count	23	37	20	59	30	10	179
		% within What is your original domicile type?	12.8%	20.7%	11.2%	33.0%	16.8%	5.6%	100.0%
	Prefecture-level city.	Count	15	36	29	82	42	8	212
		% within What is your original domicile type?	7.1%	17.0%	13.7%	38.7%	19.8%	3.8%	100.0%
	Direct-controlled municipality.	Count	2	2	1	32	1	2	40
		% within What is your original domicile type?	5.0%	5.0%	2.5%	80.0%	2.5%	5.0%	100.0%
	Provincial capital.	Count	17	13	38	57	132	7	264
		% within What is your original domicile type?	6.4%	4.9%	14.4%	21.6%	50.0%	2.7%	100.0%
Total		Count	66	142	110	336	260	41	955
		% within What is your original domicile type?	6.9%	14.9%	11.5%	35.2%	27.2%	4.3%	100.0%

Potential type of migrant.

⁶ These included 5 minority autonomous regions, 4 centrally-administered municipalities (Beijing, Shanghai, Tianjin, Chongqing), and 2 special administrative regions (Hongkong and Macau)

Family background and social class related factors

Family background and social class indicators in this research included variables as follows:

Table 5.2.11. Family background and social class

Variable name	Type	Variable description	Number of responses	Respond rate
FAM_income	ordinal	Household income. 1 for under 1000 CNY 2 for 1000 - 5000 CNY 3 for 5000- 10,000 CNY 4 for 10,000- 20,000 CNY 5 for 20,000 - 30,000 CNY 6 for 30,000 - 40,000 CNY 7 for 40,000 - 50,000 CNY 8 for more than 50,000 CNY 9 for Don't know or choose not to say	957	100%
FAM_domicile	Categorical	Original domicile type. 1 for Village or town in rural area 2 for County-level city 3 for Prefecture-level city 4 for Direct-controlled municipality 5 for Provincial capital	955	99.79%

FAM_housing	Categorical	Family housing type. 1 for Rental estate 2 for one bedroom flat 3 for Two Bedrooms flat 4 for Three Bedroom flat 5 for more than three bedrooms flat 6 for house 7 for Other	955	99.79%
FAM__soicialnetwork	ordinal	Family social network. Ordinal variable coded as 1 is very narrow and 10 is very broad	950	99.27%
FAM_F_edu	Categorical	Father's education level Coded as 1 for Below Secondary School 2 for Secondary School 3 for Secondary Technical School 4 for High School 5 for Junior College 6 for Bachelor's 7 for above Bachelor's 8 for Choose not to say	957	100%

FAM_M_edu	Categorical	Mother's education level Coded as 1 for Below Secondary School 2 for Secondary School 3 for Secondary Technical School 4 for High School 5 for Junior College 6 for Bachelor's 7 for above Bachelor's 8 for Choose not to say	957	100%
-----------	-------------	---	-----	------

FAM_party	Categorical	Whether parents are party members or not. Nomial variable coded as 1 for those whose parents are both Party members 2 for one of them is Party member 0 for those whose parents are not CCP members	947	98.96%
-----------	-------------	---	-----	--------

FAM_F_occ	Categorical	Father's occupation Coded as 1 for Staff in State Organisation 2 for Management of Public Institutions 3 for Public Institution Employee 4 for Enterprise Staff 5 for Enterprise Manager 6 for Freelance	957	100%
-----------	-------------	--	-----	------

		7 for Farmer		
		8 for Business		
		9 for Other		
FAM_M_occ	Categorical	Mother's occupation	955	99.79%
		Coded as 1 for Staff in State Organisation		
		2 for Management of Public Institutions		
		3 for Public Institution Employee		
		4 for Enterprise Staff		
		5 for Enterprise Manager		
		6 for Freelance		
		7 for Farmer		
		8 for Business		
		9 for Other		
FAM_subsidies	Categorical	Whether students received subsidies in university or not, Binary variable coded as 1 for those holding subsidies, 0 for those without.	951	99.37%

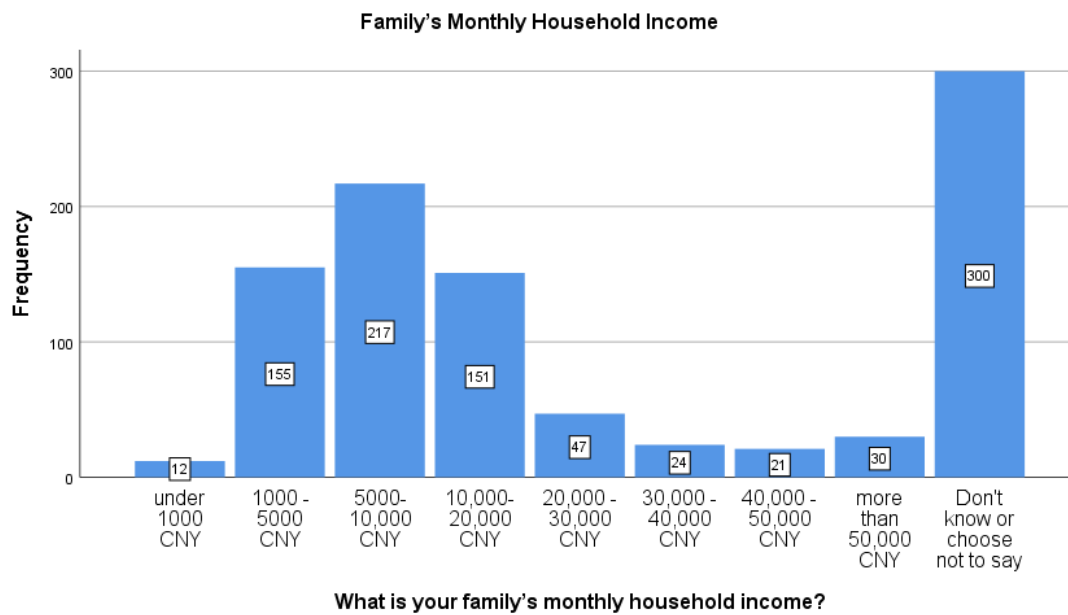


Figure 5.2.6. Household income

For family household income, a large number (300, 31.3%) of the students chose not to state their household income, or did not know their household income. This might be because, although the researcher gave a detailed description of household income, household income includes various components from different sources and is difficult to calculate. However, among the 657 students who provided information related to their household income, most of the respondents were distributed between 1000 CNY - 20,000 CNY, and 368 (56.0% of the 657 valid respondents) were distributed between 5,000 CNY - 20,000 CNY, which broadly belongs to the middle-income bracket (5750-19667 CNY) in China (Li and Xu, 2017). There were also respondents who reported high household income.

The Chi-square test did not actually show significant differences between the groups of students that did not respond to the household income question and the group that answered this question, in terms of their potential migration type ($\chi^2=5.02$, $p = 0.41 > 0.05$) or their

destination choice ($\chi^2=8.87, p = 0.06 > 0.05$). However, whether students responded to the income question or not is significantly associated with other family background related variables, such as parents' education level and parents' occupations. This indicates that, in this research, valid responses about family monthly income might be insufficient to draw a more reliable conclusion. Other aspects that might imply social class were also included and are presented below.

The survey collected data relating to living conditions, parental occupation, parental political status and parental education level.

Table 5.2.12. Descriptive analysis of factors that students value as important

Variable	Type	Meaning
PRE_Migration	Categorical	Previous migration experience between cities
Plan	Categorical	Plan after getting their degree
EDUJOB_MATCH	Categorical	Whether the job matches their major or not
RETURN_MIGRATION	Categorical	Whether the destination is where their family is
MOVE_INTENTION	Categorical	Whether respondents intend to move in the future or not
STRENGTH	Ordinal	The strength of the moving intention
FACTOR	Categorical	A group of variables related to the factors that respondents value as important
INTENTION_eco_excluded	Categorical	Excluding economic factors, would respondents still move?
PULL	Categorical	Pull factors
PUSH	Categorical	Push factors
MIG_prep	Categorical	Migration preparation

MIG_poss	Ordinal	Migration possibility
DES_Familiarity	Ordinal	Familiarity with destinations
DES_Friends	Ordinal	Friends in the destination regions

Another question that reflects migration intention is the short-term life plan that students have made. This was included to help the researcher get a better understanding of migration intentions and students' values related to different factors that influenced their migration intention. This question categorised students into:

- a) Students who intended to work directly after graduation.
- b) Students who intended to do a postgraduate degree in China.
- c) Students who intended to go abroad.
- d) Students who intended to work as a freelancer or start their own business.
- e) Students who decided to take gap years.

The distribution of these five types of students were as follows:

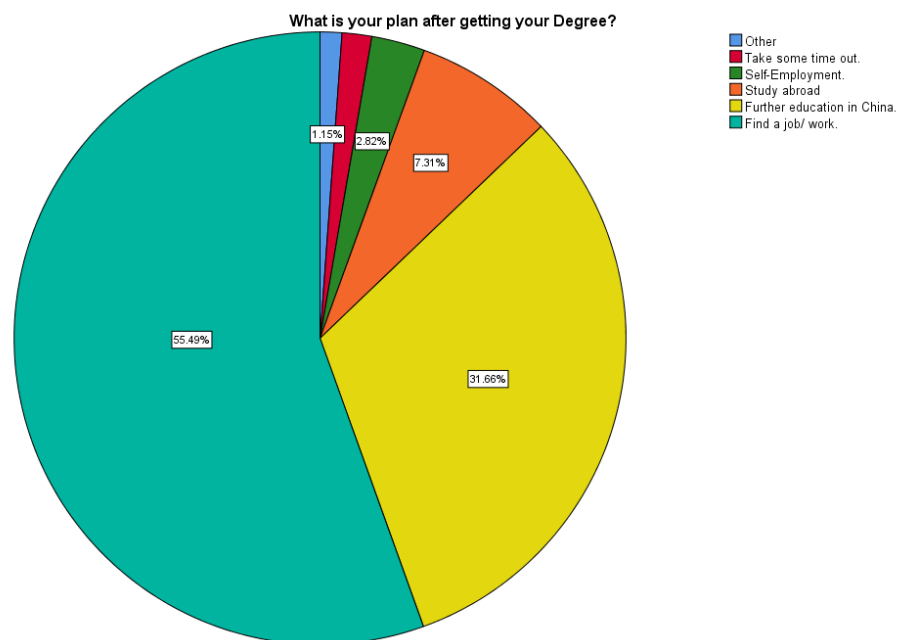
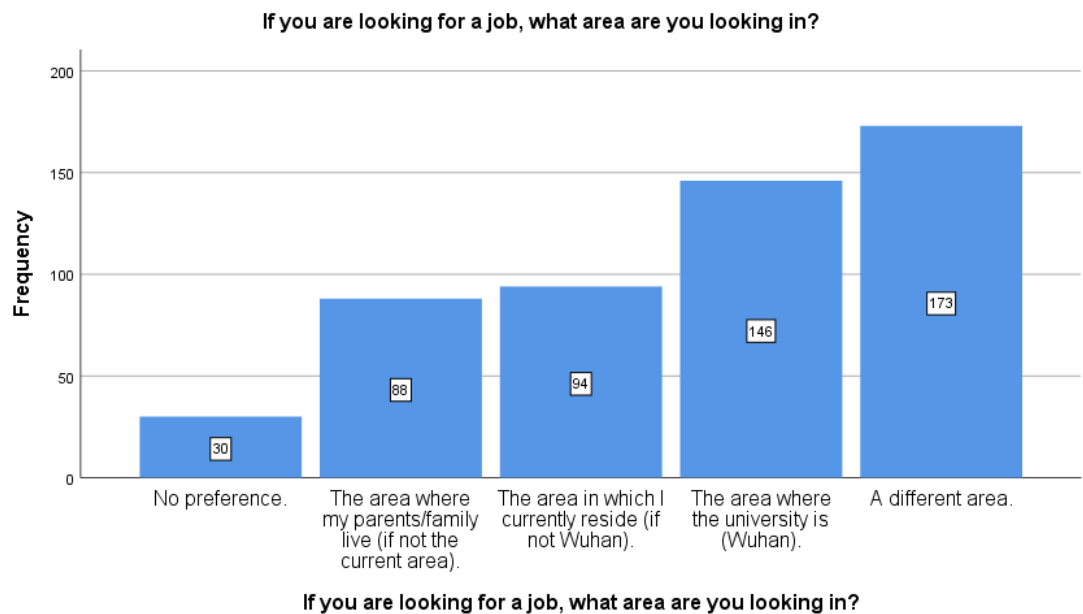


Figure 5.2.7. Plan after graduation

55.49% of 957 valid respondents chose to find jobs or had already found jobs after

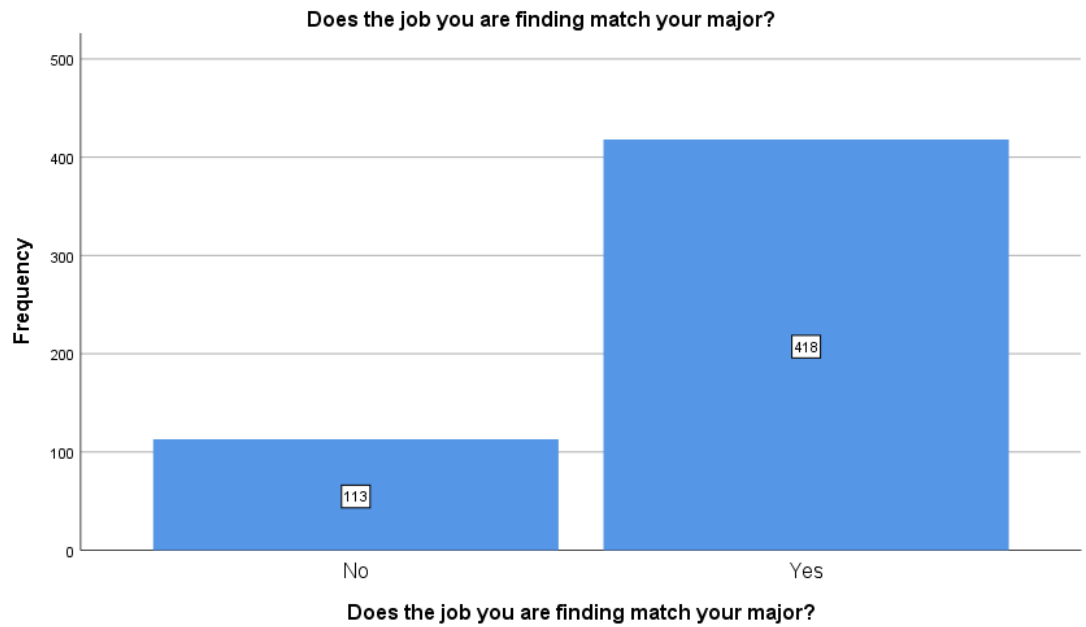
graduation, 31.66% of respondents chose further education in China, 7.31% of respondents chose to study abroad, and 2.82% of respondents chose self-employment. For the 531 (55.49%) students who decided to work or had already found a job, another two questions were asked about the location of their job, and whether their job matched their major or not.

Figure 5.2.8. Preferable location for first job



For the 531 students who intended to find a job or had already found a job, 173 (32.6%) students intended to move towards a different area i.e. repeat migrate, while 146 (27.5%) students chose to stay in Wuhan.

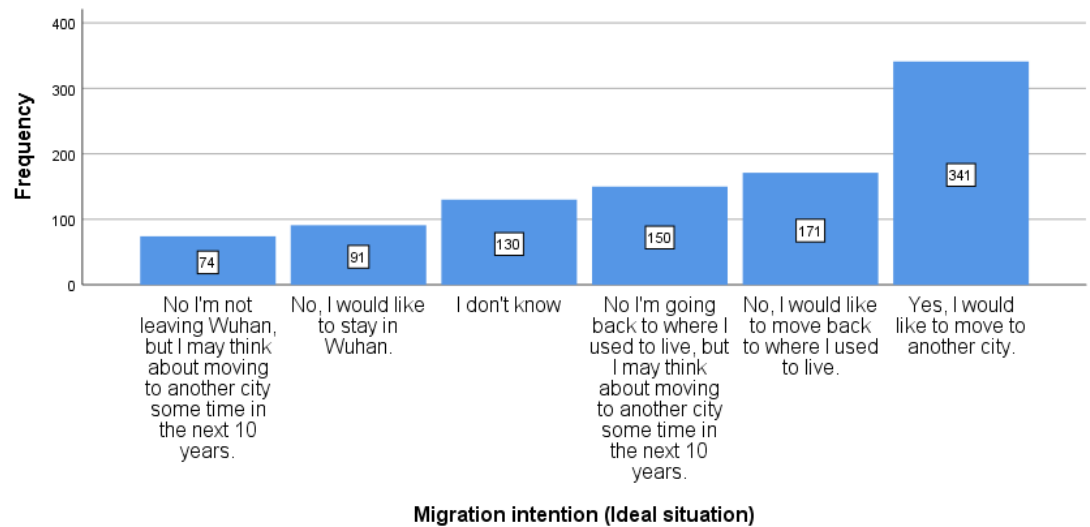
Figure 5.2.9. Does the job match the major?



Meanwhile, 418 (78.7%) of the students who intended to work reported that their job matched their major. (EDUJOB_MATCH variable)

Figure 5.2.10 Ideal migration intention

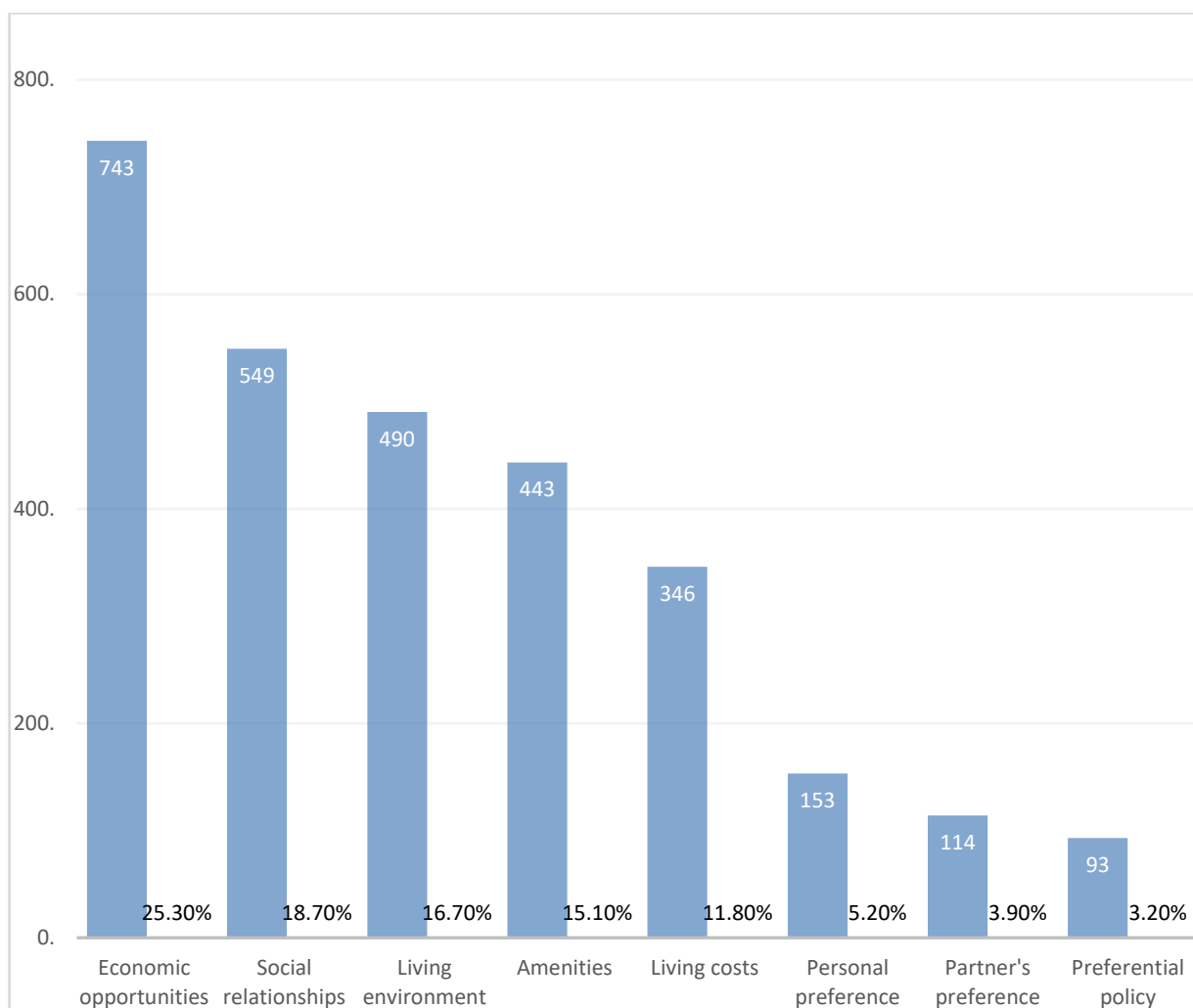
If you had the opportunity, would you like to move permanently to another city, or would you prefer to continue living in this city or move back to where you used to live?



In the questionnaire, students were asked about their region of destination considering their real situation, but were also asked (in more general terms) about their ideal situation. Surprisingly, 341 (35.63%) students reported intentions of moving to another city (potential repeat migration), and there were another 224 (23.4%) students who said they might intend to move to another city in the next 10 years. The potential repeat migrant proportion based on ideal situation (35.63%) was way higher than the potential repeat migrant proportion based on the real situation (14.8%).

The most important part of this research, about the common factors that influence graduates' migration intentions, was also presented in the survey using two multiple-choice questions. The first multiple-choice question asked students to select 1 - 4 factors that they considered the most influential on their migration intentions. The valid respondent number was 957.

Figure 5.2.11. Why have you chosen this place as your destination?



Economic opportunities still had the highest frequency, with 743 (25.3% of responses, 77.6% of cases) students considering economic opportunities as one of the most important factors, while preferential policies had the lowest frequency, with 93 (3.2% of responses, 16% of cases) students choosing preferential policies as one of their most important motivations.

Including plans after graduation, migration intentions and destination choices, migration intention related questions also included whether students would still like to move to other provinces if they could find a job with the same conditions in Wuhan. The result shows that a relatively large percentage of students (273, 81.25% of potential return migrants, 28.5% among all respondents) who were return migrants would still like to move towards another

city, which suggests that return migrants might be less driven by job opportunities in certain regions.

Assuming the same job opportunities and salary, only 22 (15.5% among potential repeat migrants, 2.3% among all respondents) students who were potential repeat migrants preferred to stay in Wuhan after graduation. This suggests that job opportunities might not be as influential as expected in this research, for students who are potential repeat migrants (moved to Wuhan for higher education and intend to move towards other provinces after graduation).

For social relationships, the students were asked about their familiarity with their destination, and the number of friends they had in the destination. 24.76% of students intended to move somewhere they had been to once or twice, which is way higher than the second most selected choice, “have heard about the destination but not familiar” (16.82%). The least two selected choices were “have lived there for a long period and very familiar with the destination”(6.90%) and “never been and know nothing about the destination”(7.00%)

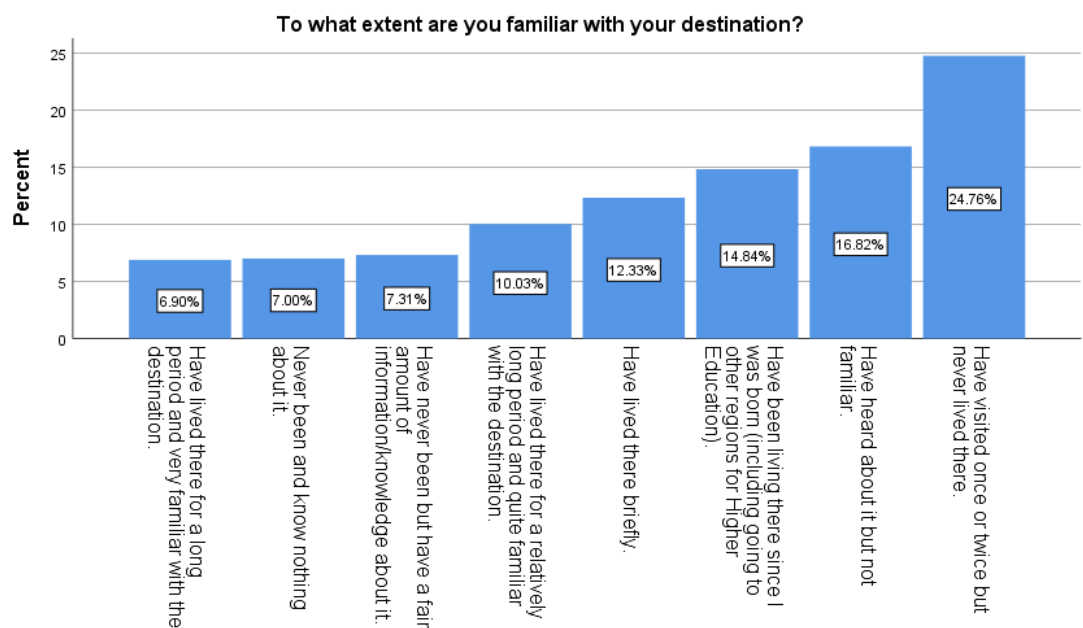


Figure 5.2.12. Familiarity level of destination

Summary of the descriptive results

The descriptive analysis clearly reveals that:

Firstly, minority students had strong intentions of return migration with 59% of minority students belonging to potential return migrants, this percentage was 32.8% for majority students. Also, minority students specifically had intentions of moving towards Western China, which suggests that ethnicity might be an influential factor in return migration intentions.

Secondly, students from different Higher Education Institutions also had different migration intentions. The three target universities represent three different fields of Higher Education Institutions in China: liberal arts, general science and creative arts. This division of fields is consistent with the division of disciplines in high school, and also lasts for a long time, even after students graduate from Higher Education Institutions and start to enter the labour market. The disparities in terms of the migration aspirations of students from these three universities, therefore, might actually reflect the difference between students in different discipline fields. In this research, CCNU had the highest potential return migrant rate, and the lowest number and proportion of potential stayers. Surprisingly, HIFA had the highest number of potential stayers among the three target Higher Education Institutions and a slightly lower than expected, but still relatively high, proportion moving towards Eastern China. WUT had a high proportion of students intending to move towards Eastern China, and a relatively lower proportion moving towards Western China or staying in Central China. However, the disparity in terms of the potential migration type among the three target Higher Education Institutions might be influenced by other factors such as discipline, differences in gender proportions in the three universities, etc. Therefore the endogeneity of different factors related to Higher Education Institutions needs to be well considered.

Thirdly, the crosstabulation of original domicile and type of potential migrants shows that 80% of students from direct-controlled municipalities, autonomous regions or special administrative regions intended to move back to where they originally came from - which is consistent with the high return migration intention of minority students. Meanwhile, students from rural areas, county-level and prefecture-level cities also had a relatively higher percentage of those intending to repeat migrate and stay in Wuhan, and also a large percentage of potential return migrants. For students from provincial capital cities, the percentage of potential stayers was 50%, with 21.6% potential return migrants. This might be related to the high local student enrolment rate in universities. This might also, to some extent, reflect the different level of attractiveness that different levels of administrative regions have.

Fourthly, in this research, students' plans after graduation varied. As well as the large percentage of students who intended to find a job directly after graduation, there were also students who planned on further education, etc. This suggests that, for students who have different demands, the factors that might influence the level of attractiveness of a destination are different, and need to be discussed separately.

Meanwhile, a large percentage of the students who intended to work reported that their job matched their major. This might indicate that, for these students, economic geographical industrial distribution strongly influences their location choice.

Fifth, while talking about their ideal situation, surprisingly, 341 (35.63%) students reported their intention to move to another city (potential repeat migration), and there were another 224 (23.4%) students who said they might intend to move to another city in the next 10 years. The potential repeat migrant proportion based on the ideal situation (35.63%) was way higher than the potential repeat migrant proportion based on the real situation (14.8%). Ideal

situations and short-term plans are usually different, which echoes the finding that aspirations and capabilities are two different things in migration research.

Sixth, when assuming the same job opportunities and salary, only 22 students who were potential repeat migrants preferred to stay in Wuhan after graduation (15.5% among potential repeat migrants, 2.3% among all respondents). This suggests that job opportunities might not be as influential for students who are potential repeat migrants (moved to Wuhan for higher education and intend to move towards other provinces after graduation).

Finally, in terms of the familiarity level of destination, 24.76% of students intended to move to somewhere they had been to once or twice, which was a lot higher than the second most selected choice, “have heard about the destination but not familiar” (16.82%). The least two selected choices were “have lived there for a long period and am very familiar with the destination” (6.90%) and “never been and know nothing about the destination” (7.00%).

Moreover, from existing research, gender, ethnic, family background, social capital and human capital are considered to be the characteristics that might influence migration choices. Economic factors might not be as influential in this research.

5.3 Binary logistic regression

In this research, in order to analyse the factors that influenced whether students intended to outward migrate from their higher education institution location after graduation, or stay in their higher education institution region, binary logistic regression is the best method. In this section, the main aim of the survey data analysis is to describe the main trends of graduates' migration aspirations and search for the most influential factors and characteristics that influenced whether students intended to outward migrate or not, while also predicting the

related situation in the future, which might help solve the brain drain situation in Central China. From the results of the descriptive analysis, most of the factors that are significantly involved are categorical (e.g. ethnicity, Higher Education Institutions, original domicile, etc.) To answer a classification question - here the research question is about whether students intend to move outward or not - with a wide range of different factors and characteristics, which means the dependent variable is dichotomous and the independent variables can be nominal or ordinal, binary logistic regression is supposed to be the most suitable and direct method.

Logistic Regression is a classification algorithm which is used to predict a categorical variable based on a set of independent variable(s). The advantage of logistic regression is that it not only fits the data that has been collected in this research, but also has a suitable function that can analyse the different influence levels of different factors in the same model. This can help the researcher be sure of which factors are the most influential on graduates' migration aspirations and location choices.

Depending on regions of origin and regions of destination, respondents were categorised into two different groups as a new variable Mig_Binary:

- a) Outward migration - students who moved outwards from Wuhan after graduation.
- b) Did not outward migrate - students who chose to stay in Wuhan after graduation.

In order to model the process of a student's graduate migration, binary logistic regression was applied in three stages, aimed at analysing the different effectiveness of various factors on graduate migration.

Excluding students not from mainland China, and not aiming at moving to regions within China, the total number of cases put into the binary logistic regression was 868.

There is going to be three stages in the modelling section:

Stage 1: in order to investigate what are the factors with the highest degree of effectiveness on whether students' outward migration or not in this research in general, a binary logistic regression that included all the cases, with 7 aspects of migration motivations as independent variables, and the Mig_Binary variable as dependent variable

Stage2: in order to investigate what's the different characteristics on the group of students that intend to outward migrate and the group of students who intend to stay in Wuhan after graduation, based on the result from descriptive analysis, and based on the existed research related to interregional migration, the researcher applied a chi-square test which tested the different characteristics between the two groups of students, trying to shed light on what kind of graduates are more possibly to stay in where Higher Education Institutions locates, and what kind of graduates intend to move outwards.

Stage3: In order to investigate different value of students with different characteristics, about how they weight different factors on migration choice, the researcher will first separate students in different sub-groups based on the characteristics that are significantly related to Mig_Binary factor (which comes from stage 2) and then apply binary logistic regression similar to stage 1 to each subgroup.

Stage1- what are the factors with the highest degree of effectiveness on whether students' outward migration

In the first model, based on the question of degree of effectiveness of different factors related to student migration intentions, seven categorical variables representing the degree of importance of seven different factors that might influence student migration choices were included. Each of these variables contains 4 dummy variables to explain the degree of effectiveness.

Table 5.3.1. Variables

Variable	Type	Meaning
FACTOR_eco	Categorical	Economic opportunities
FACTOR_ame	Categorical	Amenities
FACTOR_soc	Categorical	Social relationships
FACTOR_env	Categorical	Living environment
FACTOR_pol	Categorical	Preferential policy
FACTOR_par	Categorical	Partner's location/ preference
FACTOR_per	Categorical	Personal preference

In this research, the researcher will assign dummy variables to each of the five categories: "Very Not Important," "Not Important," "Not Bad," "Important," and "Very Important."

Table 5.3.2 Dummy Variable

Option	Description	Dummy Variable (DV)
1	Not effective at all	DV_1
2	Not so effective	DV_2
3	Not Bad	DV_3
4	Very effective	DV_4
5	One of the most effective	DV_5

When analysing data in statistical software such as SPSS, these responses would then be converted into corresponding dummy variables. For instance, if a respondent selects 'very effective,' their response will be coded as follows:

- DV_1 = 0
- DV_2 = 0

- DV_3 = 0
- DV_4 = 1
- DV_5 = 0

The result of the binary logistic regression using these seven variables and the Mig_Binary variable is as follows:

Omnibus Test of Model Coefficients shows that the model is statistically significant ($p < 0.001$), while Nagelkerke $R^2 = 0.034$. H-L test shows that this model fits the data well, with $p = 0.41 > 0.05$.

Table 5.3.3. Omnibus test of model coefficients

Omnibus Tests of Model Coefficients				
		Chi-square	df	Sig.
Step 2	Step	7.044	1	.008
	Block	22.308	2	.000
	Model	22.308	2	.000

Table 5.3.4. Model summary

Model Summary			
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
2	1117.938 ^a	.025	.034

a. Estimation terminated at iteration number 3 because parameter estimates changed by less than .001.

Table 5.3.5. Hosmer and Lemeshow test

Hosmer and Lemeshow Test			
Step	Chi-square	df	Sig.
2	1.784	2	.410

Table 5.3.6. classification table

Classification Table^a

Observed		Predicted			
		Whether student outward migrate or not			
		Students who stays in Wuhan	outward migration	Percentage Correct	
Step 2	Whether student outward migrate or not	Students who stays in Wuhan	8	294	2.6
		outward migration	15	573	97.4
Overall Percentage					65.3

a. The cut value is .500

The classification table shows that the overall percentage of correctly predicting classification of whether a student outward migrates or not is 65.3%.

It is worth noting that the MacFadden R-squared value, being less than 0.2, may have been attributed to the limited size of the original dataset collected by the author. Upon increasing the sample size by duplicating the data 200 times, there was a significant improvement observed in the MacFadden R-squared value. However, as to safeguard the credibility of the data, the author chose to rely on alternative R-squared measures as evaluation indicators instead of relying solely on the expanded MacFadden R-squared measure. The utilization of alternative R-squared measures was a precautionary measure taken to avoid any adverse impact on data reliability.

Table 5.3.7. variables in the equation

Variables in the Equation

	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
							Lower	Upper
Step 2 ^a Living environment	.220	.083	7.011	1	.008	1.246	1.059	1.466
Partner's location/ Partner's preference	-.280	.065	18.374	1	.000	.756	.665	.859
Constant	.695	.320	4.715	1	.030	2.003		

a. Variable(s) entered on step 2: Living environment

Surprisingly, variables in the resulting equation only included living environment ($p=0.008<0.05$, $OR=1.246$) and partner's location/preference ($p<0.001$, $OR=0.756$). This means that the more students value living environment as important, the more likely they are to choose outward migration. In addition, when the degree of importance increases one

unit, the likelihood increases 1.246 times. With partner's location and preference, the more students value this factor as important, the less likely they are to intend to move outwards. When the degree of importance increases one unit, the likelihood increases 0.756 times. Other factors, including economic factors, amenities factors, social relationship factors, preferential policy factors, and personal preference factors, were not significant, and are, therefore, not included in the model.

The equation is shown below:

$$\text{Log} \frac{P(\text{Mig}_{binary})}{1 - P(\text{Mig}_{binary})} = 0.695 + 0.22X_{LE} - 0.28X_{PL}$$

Where, X_{LE} is living environment factor, and X_{PL} is the partner location/preference factor.

Firstly, this result is different from much of the existing research, which suggests the importance of economic factors/amenity factors in graduate migration. This result suggests that the most influential factors on graduate outward migration intentions are living environment and partner's location/preference. This might be related to the situation that, although respondents are facing graduation, they are still receiving support from their families and might not be fully aware of the attractiveness of economic related aspects in their destinations.

Secondly, this result is a general analysis that included all the respondents without considering different characteristics that might influence the importance students give to these factors. Therefore, the second regression model aimed at finding out how the characteristics of graduates might influence their migration intentions.

stage 2- individual characteristics and graduates' outward migration intentions

In order to investigate the different characteristics between two groups of students who intend to outward migrate or not, a chi-square test has been applied to examine whether or not there is a statistically significant difference between categorical variables related to individual characteristics that selected based on the results of descriptive analysis and existed research, and the target variable for the independent test is Mig_Binary. Then a binary logistic regression which includes all individual characteristic related factors will be applied for a further examined on to what extent do these individual characteristics influence graduates' outward migration. This stage will help the researcher mapping students with what characteristics will be more intended to move outwards, while figuring out what kind of students will be more intended to stay in Wuhan.

Since the purpose of this section is to answer the question- what are the different characteristics of students who intend to migrate and who intend to stay in Wuhan? The independence test which is suitable for examine correlations and differences in two different groups, especially when most of the characteristics factors that involved are categorical variables.

Firstly, in the descriptive analysis, the most influential demographical characteristics of students are ethnicity, Higher Education Institutions, Original domicile type, Type of discipline.

Secondly, from existed research, Gender, family background related variables (in this research included several different indicators), social capital (in this research represented by the social relationship of parents, numbers of friends in the destinations and familiarity of

the destination), human capital (in this research included several different indicators) are also considered to be influential factors.

Results are shown below:

Table 5.3.8. Results of chi-square

		Whether student outward migrates or not		X^2	p
		Students who stay in Wuhan	Outward migration		
		Count	Count		
Gender	Female	196	343	3.92	0.14
	Male	98	225		
	Other	3	3		
Ethnic group	Majority (Han)	290	523	12.66	<0.001***
	Minority (Other)	12	65		
Hukou (permanent residence) type	Urban area	209	333	13.04	<0.001***
	Rural area	93	254		
Family composition	Single child	196	275	22.94	<0.001***
	Have a sibling/siblings	103	292		

Are you in a romantic relationship currently?	Yes	79	166	3.59	0.17
	No	186	373		
	Choose not to say	37	49		
Have you had migration experience before you came to Wuhan?	Yes	52	91	0.65	0.42
	No	241	492		
Type of Discipline	Other	0	2	84.27	<0.001***
	Liberal arts	39	149		
	General science	77	261		
	Creative arts	186	173		
	PE	0	3		
How many friends do you have in your target region?	None.	51	75	4.24	0.37
	A few.	75	159		
	Some.	104	193		
	Many.	31	77		
	The majority of my friends are there.	41	81		

To what extent are you familiar with your destination?	Never been and know nothing about it.	25	32	37.63	<0.001***
	Have heard about it but not familiar.	56	85		
	Have never been but have a fair amount of information/knowledge about it.	21	42		
	Have visited once or twice but never lived there.	55	163		
	Have lived there briefly.	22	90		
	Have lived there for a relatively long period and quite familiar with the destination.	44	51		
	Have lived there for a long period and very familiar with the destination.	33	31		
	Have been living there since I was born (including going to other regions for Higher Education).	46	94		
Have you received any scholarship money during your studies?	Yes, I have.	159	363	7.60	0.006***
	No, I haven't.	143	220		
Have you received any kind of subsidies during your study in university?	Yes, I have.	126	251	0.12	0.73
	No, I haven't.	175	332		
Have you been to other countries as	Yes (please provide details).	17	29	0.19	0.67

an exchange student?	No, I haven't.	282	551		
Have you been a student leader?	Yes (please provide details) .	130	315	10.62	0.001**
	No, I haven't worked as a student leader.	171	260		
Have you joined the party?	Yes, I have joined the party.	54	102	0.19	0.91
	No, but I am a probationary party member or a party activist.	97	181		
	No, I haven't.	151	301		
Do you have any work experience or internships?	Yes	212	364	5.74	0.02*
	No	89	220		
What is your family's monthly household income?	Under 1000 CNY	2	9	13.40	0.10
	1000 - 5000 CNY	48	101		
	5000- 10,000 CNY	63	147		
	10,000- 20,000 CNY	49	88		
	20,000 - 30,000 CNY	23	21		
	30,000 - 40,000 CNY	5	18		
	40,000 - 50,000 CNY	9	9		

	More than 50,000 CNY	8	17		
	Don't know or choose not to say	95	178		
What is your original domicile type?	Village or town in a rural area.	69	182	82.44	<0.001***
	County-level city.	40	116		
	Prefecture-level city.	50	147		
	Direct-controlled municipality.	3	35		
	Provincial capital.	139	108		
What type of accommodation were you living in before you came to university?	Rental estate	25	34	19.81	0.003**
	One bedroom flat	15	20		
	Two bedroom flat	113	159		
	Three bedroom flat	93	225		
	More than three bedroom flat	28	94		
	House	5	10		
	Other	23	44		
Please state the highest educational	Below Secondary School	30	70	11.16	0.13

attainment of your father	Secondary school	56	147		
	Secondary Technical school	20	27		
	High School	64	121		
	Junior College	37	61		
	Bachelor's	49	102		
	Above Bachelor's	10	11		
	Choose not to say	36	49		
Please state the highest educational attainment of your mother	Below Secondary School	43	107	24.11	0.001**
	Secondary school	52	148		
	Secondary Technical school	28	29		
	High School	63	94		
	Junior College	33	80		
	Bachelor's	32	68		
	Above Bachelor's	5	4		
	Choose not to say	46	58		

Are your parents members of the Communist Party of China?	Yes, both of them are Party members.	31	47	1.38	0.50
	Yes, one of them is a Party member.	74	150		
	No, they are not.	192	386		
What is your father's occupation?	Staff in State Organisation	23	53	27.04	0.001**
	Management of Public Institutions	14	37		
	Public Institution Employee	34	83		
	Enterprise Staff	41	65		
	Enterprise Manager	21	32		
	Freelance	73	92		
	Farmer	28	114		
	Business	32	60		
	Other	36	52		
What is your mother's occupation?	Staff in State Organisation	10	26	30.18	<0.001***
	Management of Public Institutions	13	24		
	Public Institution Employee	33	89		

	Enterprise Staff	47	73		
	Enterprise Manager	7	17		
	Freelance	88	115		
	Farmer	28	117		
	Business	23	52		
	Other	52	74		
Region of origin	Other	0	0	189.04	<0.001***
	Eastern China	14	176		
	Central China	275	255		
	Western China	10	141		
	North-East China	3	16		
Name of Institution and School	CCNU	45	232	96.50	<0.001***
	WUT	75	192		
	HIFA	182	164		

Ethnic group is significantly correlated with whether students have outward migration aspirations or not (with $X^2=12.65$, $p<0.001$), the differences between two groups of students with different migration aspirations in terms of their ethnicity is significant. More specifically, minority has higher possibility of outward migration (84% among minority students intend to move outwards, with frequency of 65) This consists with the result from descriptive analysis. The following graph intuitively shows percentage of students who intend to outward migrate and students who intend to stay in Wuhan within different ethnicity groups.

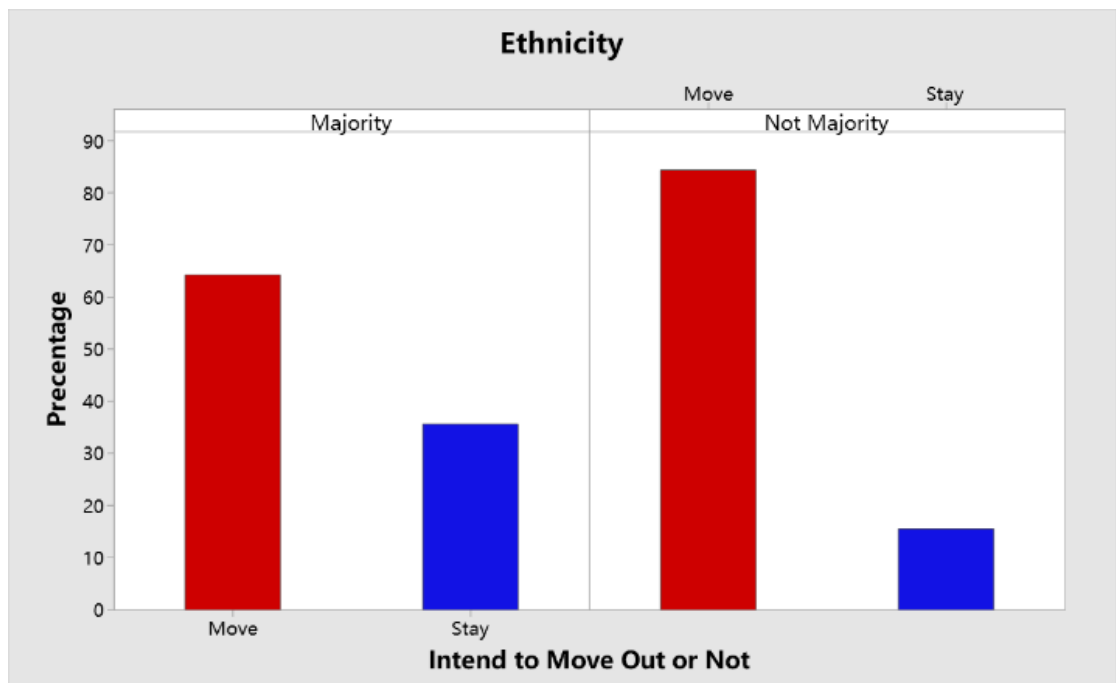


Figure 5.3.1. Ethnicity*Intend to Move Out or Not

There is also statistically significant difference on Higher Education Institutions (with $X^2=96.50$, $p<0.001$). As it has been shown in the following graph, which compares percentage (percentage of total number) of students in each Higher Education Institutions who intend to outward migrate and who intend to stay in Wuhan.

consist with the descriptive analysis, more students from CCNU and WUT intend to move outwards, and more students from HIFA intend to stay in Wuhan. To investigate the

hypothesis that the high outward migration intention rate of students in CCNU is related to the large percentage of students in CCNU have signed contract as pre-service teachers, a chi-square test has also been applied to Mig_Binary variable and PS_Teacher variable (whether students are pre-service teachers or not in CCNU).

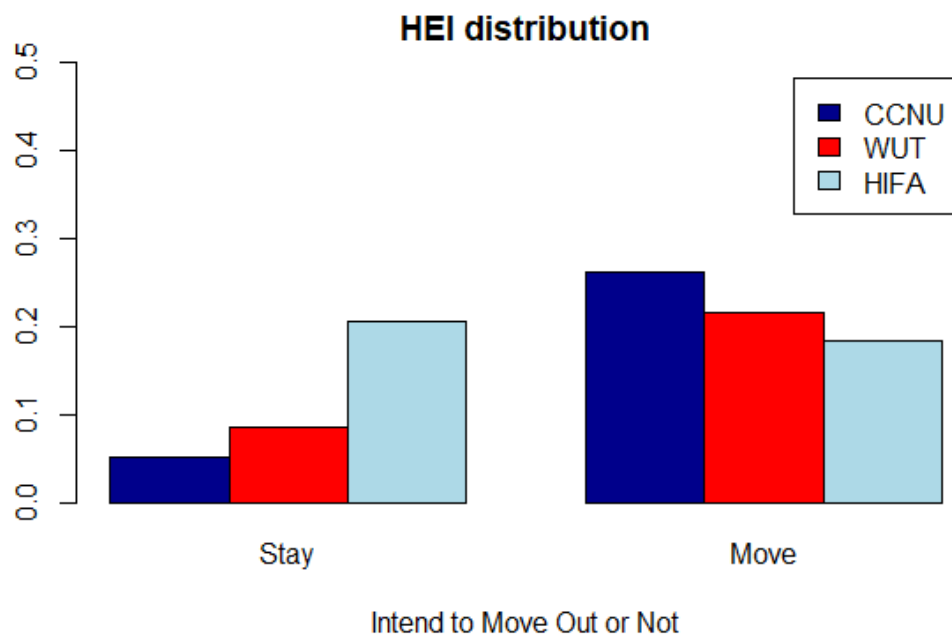


Figure 5.3.2. higher education institution distribution*Intend to Move Out or Not

Table 5.3.9.

		Pre-service teacher * Whether student outward migrate or not Crosstabulation			
		Whether student outward migrate or not			Total
		Students who stays in Wuhan	outward migration		
Are you a pre-service teacher?	Yes, I am.	Count	13	130	143
		Expected Count	23.2	119.8	143.0
		% within Are you a pre-service teacher?	9.1%	90.9%	100.0%
	No, I'm not.	Count	32	102	134
		Expected Count	21.8	112.2	134.0
		% within Are you a pre-service teacher?	23.9%	76.1%	100.0%
Total	Count	45	232	277	
	Expected Count	45.0	232.0	277.0	
	% within Are you a pre-service teacher?	16.2%	83.8%	100.0%	

Table 5.3.10.

Chi-Square Tests					
	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2- sided)	Exact Sig. (1- sided)
Pearson Chi-Square	11.121 ^a	1	.001		
Continuity Correction ^b	10.060	1	.002		
Likelihood Ratio	11.374	1	.001		
Fisher's Exact Test				.001	.001
Linear-by-Linear Association	11.081	1	.001		
N of Valid Cases	277				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 21.77.

b. Computed only for a 2x2 table

In the survey, only CCNU students are able to choose whether they are pre-service teachers or not, since pre-service teacher is a specific project in Normal Universities⁷ in China. Total number of students who answered the question about pre-service teacher and intend to stay within mainland China is 277, The result from chi-square test shows that the pre-service teacher variable is significantly correlated with Mig_Binary variable (with $X^2=11.12$, $p=0.001<0.05$). From the table above, it's clear that over 90% of pre-service teacher intend to move out after graduation.

⁷ A normal school is an institution created to train high school graduates to be teachers by educating them in the norms of pedagogy and curriculum. Most such schools, where they still exist, are now denominated "teacher-training colleges" or "teachers' colleges" and may be organized as part of a comprehensive university.

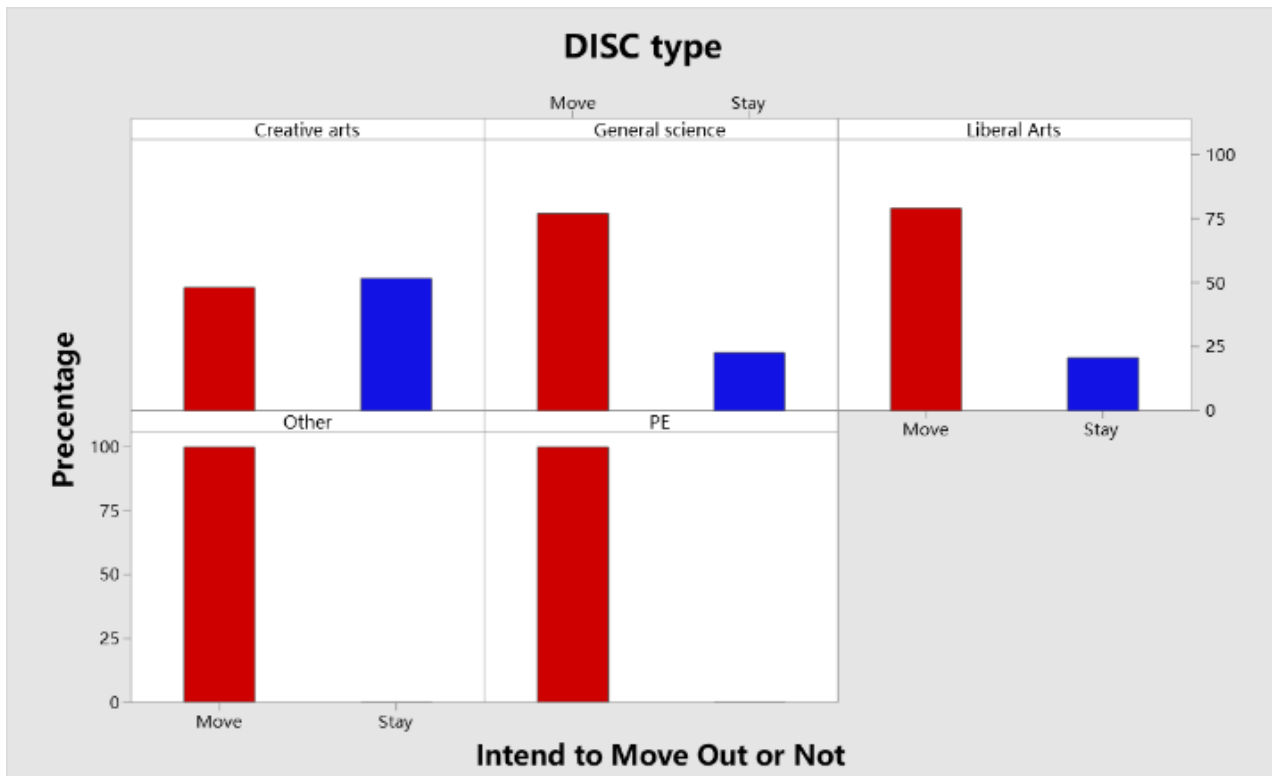


Figure 5.3.3. Discipline type* Intend to move out or not

Also, considering the different nature of the three target Higher Education Institutions (a normal university, a technology specific university, a creative art college), the correlation between disciplines and Mig_Binary variable also examined by chi-square test, with $X^2=87.09$, $p=0.001 < 0.05$, which suggests that discipline is significantly correlated with the outward migration intention of graduates. More specifically, while a large percentage of students from liberal arts and general science intend to move out, there are 51.8% of students who are major in creative art intend to stay in Wuhan. (as shown above)

Table 5.3.11.

Original domicile type * Whether student outward migrate or not Crosstabulation

		Whether student outward migrate or not			
			Students who stays in Wuhan	outward migration	Total
What is your original domicile type?	Village or town in rural area	Count	69	182	251
		% within What is your original domicile type?	27.5%	72.5%	100.0%
County-level city.		Count	40	116	156
		% within What is your original domicile type?	25.6%	74.4%	100.0%
Prefecture-level city.		Count	50	147	197
		% within What is your original domicile type?	25.4%	74.6%	100.0%
Direct-controlled municipality.		Count	3	35	38
		% within What is your original domicile type?	7.9%	92.1%	100.0%
Provincial capital.		Count	139	108	247
		% within What is your original domicile type?	56.3%	43.7%	100.0%
Total		Count	301	588	889
		% within What is your original domicile type?	33.9%	66.1%	100.0%

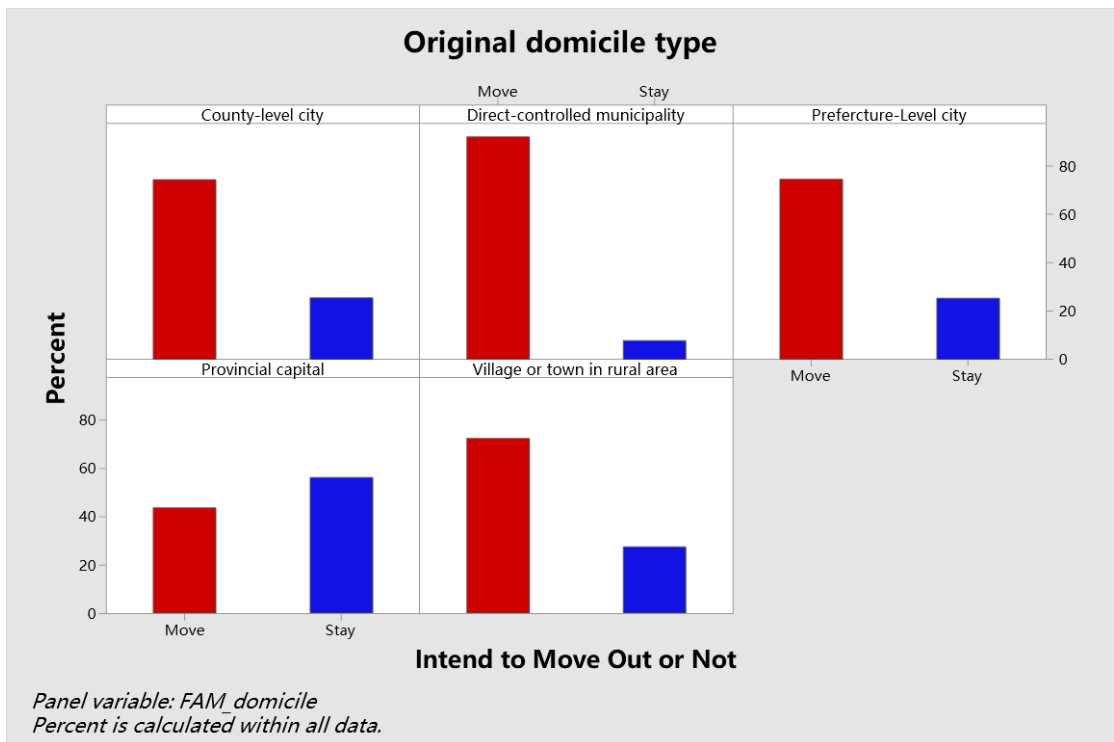


Figure 5.3.4. Original domicile type* Intend to move out or not

The chi-square test result about the original domicile type and Mig-Binary variable is also significant ($X^2=82.43$, $p<0.0001$). The interesting result is that while among students who comes from village or town in rural area, county-level cities, prefecture-level cities and direct-controlled municipality, over 70% of students have outward migration intention, 56.3%

students from provincial capital city, somehow, intend to stay in Wuhan. However, this doesn't represent that Wuhan has strong attractiveness to students from capital cities, since among the 139 students who originally come from capital cities and also intend to stay in Wuhan, 138 students come from Wuhan (based on the information related to region of origin).

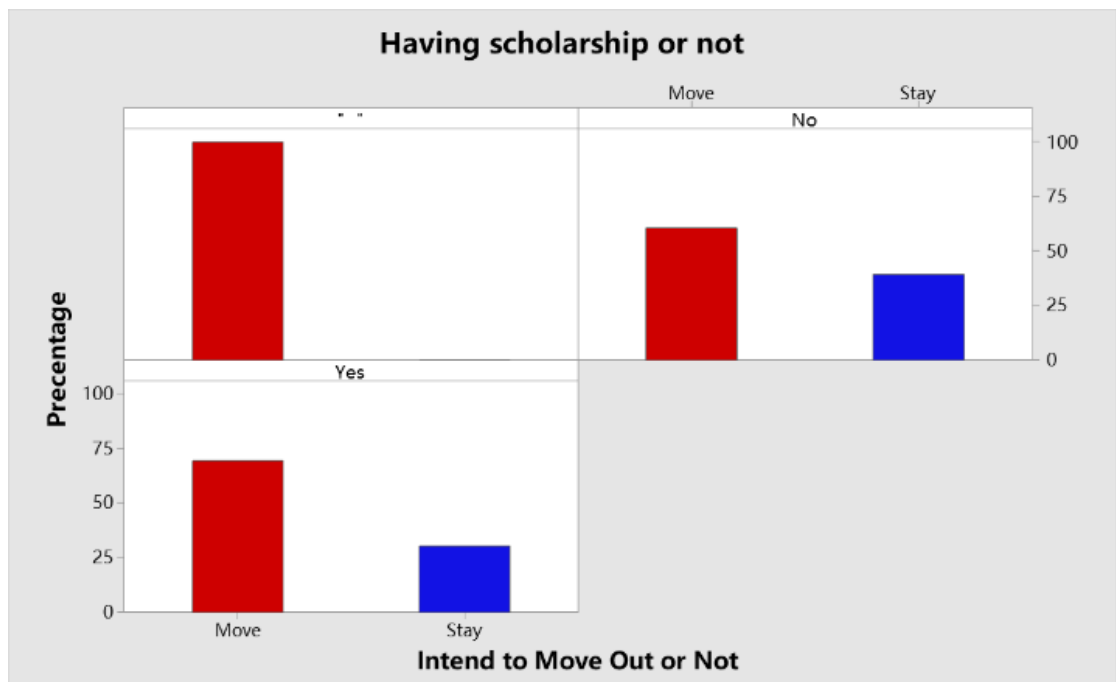


Figure 5.3.5. Having scholarship or not* Intend to move out or not

Among all the human capital indicator, the other characteristic that has difference among students who intend to move out and who intend to stay, is whether students have scholarship or not ($X^2=7.60$, $p=0.006 < 0.05$) There are 57.9% students who reported that they've had at least one time of scholarship during four-year university. And these students who had scholarship has significantly higher proportion of students who have outward migration aspirations.

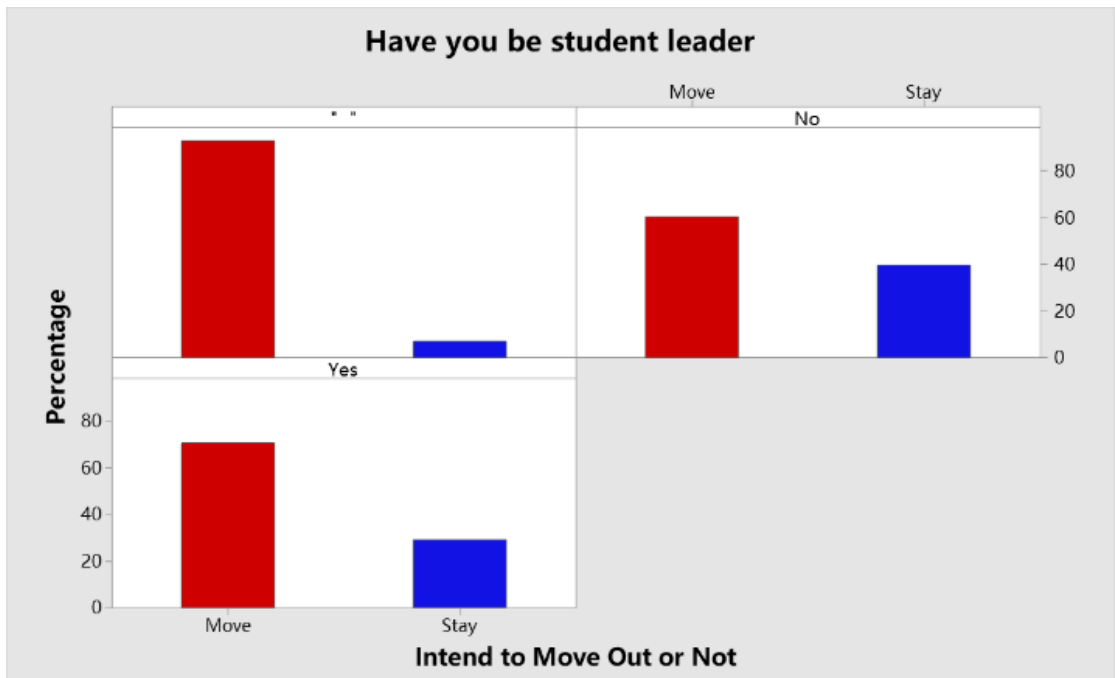


Figure 5.3.6. Student leader* Intend to move out or not

Second human capital related variable which is significantly correlated Mig_Binary variable is HC_studentleader, which means whether students have experience as student leader or not. ($X^2=10.62$, $p=0.001 < 0.05$) The students who have experience of being student leaders are more likely to have intention of outward migration.

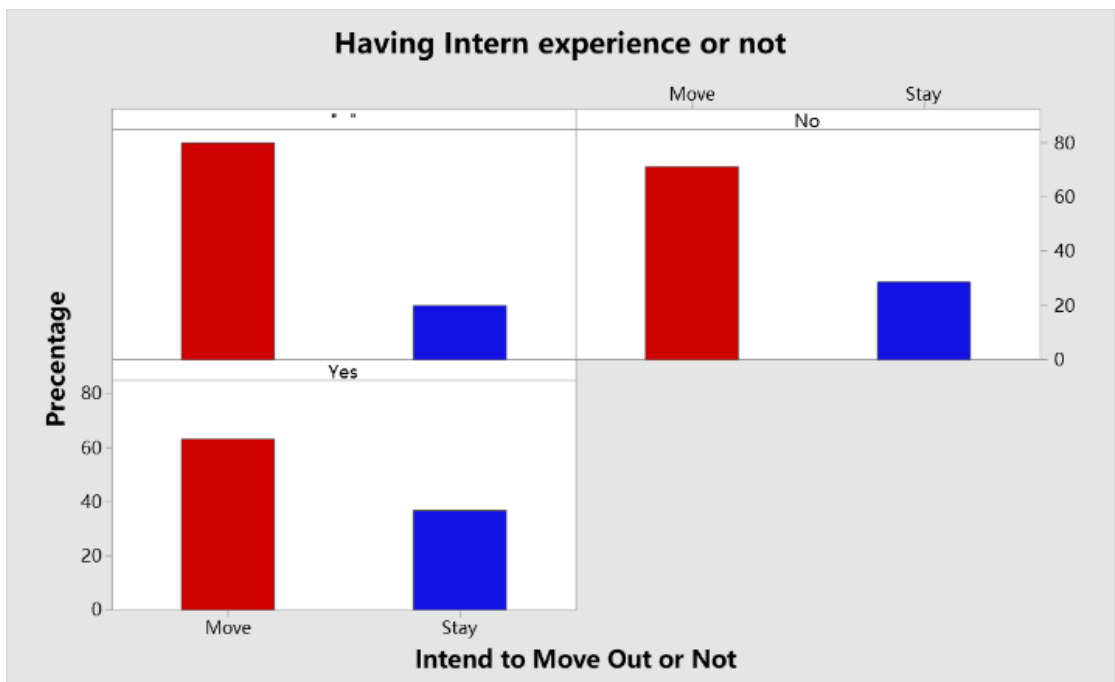


Figure 5.3.7. Intern experiences* Intend to move out or not

Similarly, whether students have extra internship experience or not is also significantly correlated with whether they have outward migration intentions or not.

($X^2=5.73$, $p=0.017 < 0.05$) Students have extra internship experience will be more likely to intend to stay in Wuhan than students without extra intern experience.

For the family background related characteristics, the type of accommodations ($X^2=19.81$, $p=0.003 < 0.05$) is significantly correlated with the Mig_Binary variable. As the respond rate of the question related to household income is relatively low, type of accommodation as family heavy asset is more direct on reflecting student's family background especially financial situation than household income that are complex and difficult to calculate. In this research, as shown in graph below, students whose family lives in rental estates, one-bedroom flats and two-bedroom flats has relatively higher proportion of intending to stay in Wuhan after graduation, than those who lives in three or more bedroom flats and houses.

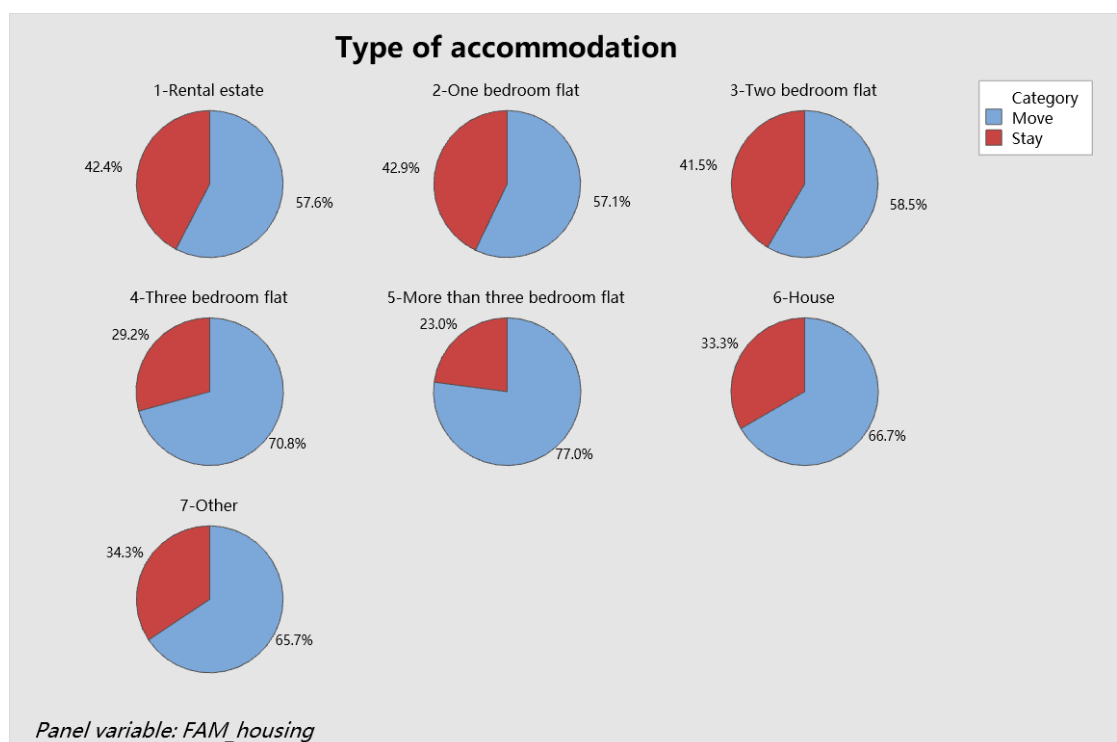


Figure 5.3.8. Type of accommodation* Intend to move out or not

Based on existed research, Hukou system is still an important factor on social class stratification in present China (Tsang, 2013), therefore also being included in this stage. The result from Chi-square test show that HUKOU is also significantly correlated with Mig_Binary variable ($X^2=13.04$, $p<0.001$), with students larger percentage of students who have rural Hukou intend to move out (73.19%), on the contrary, relatively smaller percentage of students with urban Hukou intend to move out (61.43%)

According to existing research, previous migration experience and gender are also commonly considered as factors associated with migration choice (Faggian et al., 2007a, Faggian et al., 2007b, Zheng and Wu, 2017a). Therefore, although the result from the chi-square test did not show significant association between gender and Mig_Binary (with $X^2=3.92$, $p=0.14$), the researcher still considers the gender variable as a concomitant variable in logistic regression, the same is true for the PRE_Migration variable ($X^2=0.65$, $p=0.42$).

Also, interestingly, father's education level does not seem to have significant association with whether a student intends to outward migrate or not, with $\chi^2= 11.16$ $p=0.13$, while mother's education level is significantly associated with Mig_Binary, with $\chi^2= 24.11$ $p=0.001^{**}<0.05$

The table below (table 66) includes the Chi-Square goodness of fit test. $P<0.05$ We can reject this null hypothesis. This means that at least one OR of the variable that is included in the model is statistically significant, that is, the overall model is significant. -2 Log likelihood= 758.26 and Nagelkerke $R^2 =0.43$.

Table 5.3.12. Omnibus test of model coefficients

Omnibus Tests of Model Coefficients				
		Chi-square	df	Sig.
Step 7	Step	3.982	1	.046
	Block	308.088	18	.000
	Model	308.088	18	.000

Table 5.3.13. model summary

Model Summary			
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
7	758.262 ^a	.313	.430

a. Estimation terminated at iteration number 5 because parameter estimates changed by less than .001.

H-L test shows $p=0.109>0.05$ which suggests that the null hypothesis can be rejected, and the full model is considered to fit the data well.

Table 68. Hosmer and Lemeshow Test

Hosmer and Lemeshow Test			
Step	Chi-square	df	Sig.
7	13.077	8	.109

The classification table below shows 78.4% correct classification in the model, which suggests that this model is not too bad in classifying whether students outward migrate or not.

Table 5.3.14. classification table

Classification Table ^a						
Observed		Predicted			Percentage Correct	
		Whether student outward migrate or not				
Step 7	Whether student outward migrate or not	Students who stays in Wuhan	outward migration			
		Students who stays in Wuhan	195	95	67.2	
	outward migration	82	449	84.6		
Overall Percentage				78.4		

a. The cut value is .500

Based on the result of the regression (table 70), these seven factors are considered significantly influential in the model, with the p value shown in the table below:

- Family composition

- Name of institutions and schools
- Familiarity of destinations
- Scholarship
- Original domicile type
- Type of accommodation
- Region of origin

Table 5.3.15. results of binomial logistic regression

	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
							Lower	Upper
Step 7 ^a								
Family composition(1)	-.503	.207	5.926	1	.015	.604	.403	.907
Name of Institution and School			26.128	2	.000			
Name of Institution and School(1)	1.238	.246	25.404	1	.000	3.448	2.131	5.579
Name of Institution and School(2)	.622	.219	8.048	1	.005	1.863	1.212	2.864
To what extent are you familiar with your destination? (ordinal)	-.126	.045	7.717	1	.005	.882	.807	.964
Have you received any scholarship money during your studies? (1)	.368	.185	3.976	1	.046	1.445	1.006	2.076
What is your original domicile type?			16.321	4	.003			

What is your original domicile type? (1)	.314	.270	1.352	1	.245	1.369	.806	2.327
What is your original domicile type? (2)	.809	.278	8.491	1	.004	2.245	1.303	3.867
What is your original domicile type? (3)	.892	.254	12.367	1	.000	2.440	1.484	4.012
What is your original domicile type? (4)	.744	.714	1.085	1	.298	2.104	.519	8.529
What type of accommodation were you living in before you came to university?			18.594	6	.005			
What type of accommodation were you living in before you came to university? (1)	-.303	.466	.423	1	.516	.739	.296	1.842
What type of accommodation were you living in before you came to university? (2)	-.054	.539	.010	1	.920	.947	.329	2.723
What type of accommodation were you living in before you came to university? (3)	-.096	.366	.068	1	.794	.909	.443	1.864
What type of accommodation were you living in before you	.674	.364	3.431	1	.064	1.962	.962	4.003

came to university? (4)

What type of accommodation were you living in before you came to university? (5)	.712	.419	2.880	1	.090	2.037	.896	4.635
What type of accommodation were you living in before you came to university? (6)	.235	.808	.085	1	.771	1.265	.260	6.169
Region of origin			98.704	3	.000			
Region of origin(1)	1.230	.739	2.771	1	.096	3.420	.804	14.552
Region of origin(2)	- 1.436	.681	4.444	1	.035	.238	.063	.904
Region of origin(3)	1.040	.767	1.838	1	.175	2.829	.629	12.724
Constant	.762	.815	.874	1	.350	2.143		

a. Variable(s) entered on step 7: Have you received any scholarship money during your studies?.

Stage3- How do graduates with different individual characteristic value factors that influenced their migration aspirations?

Sequentially, there is another question about whether students with different individual characteristics value migration related factors differently. For example, in this research, it has been shown in the stage 2 that students with rural Hukou and urban Hukou will have different tendency of whether deciding to move out from where their higher education institution locates. However, it is the specific influential elements that are causing the disparities between their valuation regarding different factors during the decision-making process that really needs to be further analysed and discussed. Therefore, in this section, based on the findings from descriptive analysis, stage 1 and stage 2, after categorising respondents based on different characteristics, binary logistic regression with factors in stage 1 as independent variable and Mig_Binary as dependent variable.

In the third step, after categorising respondents based on different characteristics, the result of binary logistic regression shows that, for a single child, different from the result in model 1, economic opportunity has relatively stronger explanatory power than other factors, followed by personal preference, preferential policies, and partner's preference. (Overall percentage of correct classification=61.99%, Nagelkerke R Square=0.099, model $p < 0.001$, H-L test $p = 0.532 > 0.05$).

Table 5.3.16. Variables in the equation

		Variables in the Equation						95% C.I. for EXP(B)	
		B	S.E.	Wald	df	Sig.	Exp(B)	Lower	Upper
Step 4 ^a	Economic opportunities	.405	.118	11.790	1	.001	1.499	1.190	1.889
	Preferential policy	-.277	.121	5.223	1	.022	.758	.598	.961
	Partner's location/ Partner's preference	-.364	.093	15.246	1	.000	.695	.579	.834
	Personal preference	.198	.095	4.357	1	.037	1.219	1.012	1.468
	Constant	-.007	.547	.000	1	.990	.993		

a. Variable(s) entered on step 4: Personal preference

Similarly, for students who have urban HUKOU, the influence level of different factors is different from students from rural areas. For those with urban HUKOU, the most influential factors are economic opportunities, followed by partner's location/preference factor. (Overall percentage of correct classification=61.30%, Nagelkerke R Square=0.05, model $p < 0.001$, H-L test $p = 0.603 > 0.05$).

Table 5.3.17. Variables in the equation

		Variables in the Equation					95% C.I. for EXP(B)		
		B	S.E.	Wald	df	Sig.	Exp(B)	Lower	Upper
Step 2 ^a	Economic opportunities	.265	.101	6.821	1	.009	1.303	1.068	1.590
	Partner's location/ Partner's preference	-.306	.080	14.715	1	.000	.736	.630	.861
	Constant	.321	.432	.555	1	.456	1.379		

a. Variable(s) entered on step 2: Economic opportunities 经济因素 (例如就业机会, 薪资水平, 职业发展前景) - 请选择重要程度.

Considering economic factors as most influential is more obvious among students who originally come from capital cities of provinces, followed by the social relationships factor. (Overall percentage of correct classification=61.10%, Nagelkerke R Square=0.08, model $p = 0.002 < 0.05$, H-L test $p = 0.068 > 0.05$).

Table 5.3.18. Variables in the equation

		Variables in the Equation					95% C.I. for EXP(B)		
		B	S.E.	Wald	df	Sig.	Exp(B)	Lower	Upper
Step 3 ^a	Economic opportunities	.383	.155	6.078	1	.014	1.467	1.082	1.989
	Social relationships	-.293	.140	4.361	1	.037	.746	.567	.982
	Partner's location/ Partner's preference	-.274	.122	5.014	1	.025	.760	.598	.966
	Constant	.151	.694	.047	1	.828	1.163		

a. Variable(s) entered on step 3: Social relationships

The result also shows that female students, specifically, tend to take amenities as the most influential factor in their migration intentions, which might be related to gender disparities in general in China, and is left for further research in the following chapters. (Overall percentage of correct classification=63.60%, Nagelkerke R Square=0.066, model $p < 0.001$, H-L test $p = 0.467 > 0.05$).

Table 5.3.19. Variables in the equation

		Variables in the Equation					95% C.I. for EXP(B)		
		B	S.E.	Wald	df	Sig.	Exp(B)	Lower	Upper
Step 2 ^a	Amenities	.381	.115	10.925	1	.001	1.464	1.168	1.835
	Partner's location/ Partner's preference	-.344	.082	17.455	1	.000	.709	.603	.833
	Constant	.268	.429	.389	1	.533	1.307		

a. Variable(s) entered on step 2: Amenities

5.4 Summary

In this chapter, the main findings are as follow:

Different from existing research, the most influential factors coming from this chapter on whether students intend to stay in Wuhan or move outwards, are living environment and partner's preference. The definition of living environment might vary among respondents, so needs to be explained in further research.

Students from three target Higher Education Institutions have significantly different migration aspirations, and this trend consists with the disparity on disciplines, with general science students and liberal art students intend to move outwards, and creative art students intend to stay in Wuhan. However, the reason behind this situation is complicated.

liberal art students have significantly higher intention of moving outwards.

High intention of staying in Wuhan among students who major in creative art might related to the high local enrolment rate (67.7%)

Minority students unexpectedly have strong intention of return migration.

Family background might be influential to student's outward migration, especially financial situation. Students' whose family with better real estate, will have higher intention of moving outwards than stay in Wuhan.

So are students with Rural Hukou, and those who lives in less developed areas such as rural areas, county-level and prefecture-level cities has stronger intention of moving out.

Economic factors are more influential on students with urban Hukou, especially students from provincial capital. And for those single child.

Amenities factor has more explanatory power on female students

The short-term migration intention doesn't fully reflect the long-term plan of living of students since the ideal situation is sometimes different from the real migration capability of graduates.

Chapter 6

How are migration ideas shaped? Viewing this dynamic process from a chronological and horizontal perspective

6.1 introduction

Recently, more scholars have been focusing their attention on the attractiveness of a region to particular groups, for example ‘the creative class’, emphasising the importance of these groups in enhancing regional development (Florida, 2002). (Niedomysl, 2010) asked a key question in the regional attractiveness research field:

What is it that makes some places, regions or nations appear more attractive than others to live in, visit or invest in? Does it depend on the particular characteristics or situation of the persons considering the attractiveness, in what phase in life the persons find themselves, or are there some common features, perhaps place characteristics that are viewed positively by all, independently of context?’ (p.97)

These are complicated questions, requiring a deeper understanding of these special groups, and a deeper understanding of their behaviour, than is currently available. Although it is easy to claim that some aspects show stronger levels of influence on some talents over others - for example, in this particular piece of research, higher education institution graduates - what can be seen through extant empirical data is still the tip of the iceberg. Similar to existing studies, the previous chapter presented which factors play the most important role in graduates’ migration intentions and aspirations, which also reflect the students’ various attitudes and values relating to objective regional characteristics. But to thoroughly understand the graduate migration phenomenon, we need an in-depth understanding of the subjects of this migration behaviour.

To this end, (Niedomysl, 2010) suggested viewing regional attractiveness from a migration perspective. The approach is similar to Maslow's hierarchy of needs, which layered human motivational drives into five stages of needs, from bottom (basic) to top (core): physiological, safety, love/belonging, esteem, self-actualisation (Maslow, 1943). Niedomysl layered the motivations for destination choices in migration into three stages, based on the degree of place attractiveness to a person: needs, demands, preferences.

However, the decision-making does not happen spontaneously - it has its own process of development. (Niedomysl, 2010) regional attractiveness framework, suggests that migration should be understood from a life-course perspective, which means in different life stage, the regional attractiveness and factors changes for individuals. In Niedomysl's research, it has been demonstrated that the line between 'needs', 'demands' and 'preferences' is not always clear, and their relative importance in the decision making hierarchy can change. The findings presented in this chapter revealed that the formation of a student's values in relation to the various aspects of their migration aspirations is a dynamic and gradual process. A thematic analysis of the interviews revealed that participants went through phases over a period of time in terms of their behavioural motivations and their values in the significant decisions in their lives.

For example, being a high school student in China is usually related to the aim of passing the College Entrance Exam (known as the CEE), and trying to get through the door of their ideal Higher Education Institutions in order to accumulate human capital for the future. This specific need stops when students pass the CEE and enter Higher Education Institutions, as the drive to move to new places is no longer 'chasing better universities', unless they plan to stay in education after they graduate (and even if they do, at that point the motivation is still more complex than the motivation for entering Higher Education Institutions). At this key period in shaping their view of life, students start to consider what is really important to

them and think about the future when they are in university. During this period, the constraints of academic performance can be slightly loosened and students have more autonomy to make their own choices.

This chapter will investigate the dynamic process of decision-making from a chronological perspective. Based on findings from a thematic analysis of the interviews, the transformation of the students' ideas fell naturally into three stages:

Stage 1 - Reasons for coming to study in Wuhan (before idea formation)

Stage 2 - University experience and changing ideas (idea shaping, changing)

Stage 3 - Facing graduation (almost shaped)

From stage 1 of this research, the main findings reveal why students from different places chose to study in Wuhan (Central China). Did they have a strong desire to go there, or was going to Higher Education Institutions in Wuhan their last choice?

From stage 2, students' changing ideas and the process of shaping their future plans is presented.

From stage 3, the findings show that, by the time students are facing graduation and getting ready to step into the labour market, their migration aspirations become clearer and clearer through their destination selecting process. As a result of this process, students finally have relatively clear intentions of what they would like to do and where they would like to live and work after graduation, based on the information they have and the way they value different regional characteristics.

6.1 - Before - Reasons for coming to study in Wuhan

One of the students from the interview, Song, mentioned her capacity to adapt to different situations, which she developed during her previous migration experiences before high school. Song also revealed that she had an adventurous personality and a strong desire to have new experiences. She said:

Song: I want to have the opportunity to try somewhere else. I've been living in various places since I was young... Because I've moved a lot since I was young, I wouldn't say that for me there is a special feeling or obsession about one specific place. I can enjoy every city I live in.

Originally from Liaoning (an industrial province in North-East China), Song moved to Sichuan (Western China), and then went to Central China Normal University (CCNU) to study law. This previous migration experience formed her ability to accept new things and adapt to new environments, while also reducing her emotional connection with her home town.

Amongst the five students out of the sample of 23 who showed strong intentions of 'challenging themselves' or 'searching for new experiences', three of them had experienced migration several times (both close by and further afield) before they came to university, while the other two students had been in the same province (Hubei) the whole time.

At the beginning, the researcher thought that maybe the previous migration experiences in the students' early stages would have had a strong influence on their migration behaviour and their values, since there is existing research that suggests this. However, in the survey data, through a chi-square test between the variables PRE_Migration (previous migration experience) and REG_DES_category (category of regional of destinations), MIG_type (potential type of migrants), MOVE_INTENTION (Whether respondents intend to move in the future or not), RETURN_MIGRATION (Whether destination is where family is) and

INTENTION_eco_excluded (Excluding economic factors, would respondents still move) variables, no significant result was shown. The result of a chi-square test between the previous migration experience variable and the personality variable related to respondents' adaptability showed significant correlation, with Fisher's $p= 0.044$, Cramer's $V= 0.1$. However, the correlation is not strong. This might be due to the insufficient information about previous migration experiences in the questionnaire. Thus, in this section, previous migration experience is combined with "pre-university migration", and will not be discussed as a significant finding.

6.1.1 "I hardly had any choices"

Jenny captures a common sentiment amongst most middle-class Chinese students about how they made the decision to study in Wuhan. Before choosing to study in Central China University, she remembered:

Jenny: I didn't choose Wuhan. I chose Shanghai... The first one I applied for was the East China Normal University, and then CCNU, but I do not want to be a teacher, I do not know why all the application forms I filled in were Normal Universities... East China University of Politics and Law, then Shanghai University, that's all. Only one of them is located in Wuhan, but I passed my second or third application as I remember. So here I am.

A similar story from Allen, who studied TESOL in CCNU:

Allen: The dream at that time was to go to Beijing Normal University to be honest. I didn't do well in three subjects in the College Entrance Examination.

The CEE was a common feature in almost all of the students' interviews, as well as the importance of their score in their choice of university and location. Whilst the self-evaluation of their performance in the CEE varied, it was instrumental in their choice to study in Wuhan, Central China.

The migration from high schools to Higher Education Institutions in China can be seen as semi-voluntary. This is a status between voluntary migration, in which migrants have complete control over their migration decision making and have the autonomy to move; and involuntary migration, where migrants do not have migratory aspirations or will but are forced to move. Semi-voluntary migration in this context refers to students who, to some extent, do or do not have strong intentions of going to certain regions for higher education and have to accept relocation or going to a certain region as a result of their performance in the CEE. The choice of regions is limited by their CEE scores in the first place. As Ariel stated: ‘...I didn't get a good grade in the College Entrance Exam at that time. I hardly had any choices!’

The role of the application system in China is interesting for this study, because until 2017, students could apply to university only before the CEE results came out, and not afterwards. Therefore, students had to estimate their scores and, based on that estimation, apply to three or four universities and majors. Also, the standard acceptance score for each university was not revealed until after both the application submission date and the score reporting date. This meant that a student's acceptance into a university could be surrounded by uncertainty. Students facing multiple choices of universities and locations might not have specific preferences, but for those who had a strong preference, the reluctance to study at an higher education institution in Wuhan might also give them the motivation for outward migration after graduation. As Zhuorya noted:

Zhuorya: Because when I took the College Entrance Examination, I wanted to go to the Chinese Academy of Fine Arts, the university in Hangzhou, but unfortunately, I failed... But if I was studying at the Chinese Academy of Fine Arts at that time, maybe... Maybe I wouldn't want to stay in Hangzhou or Guangdong or Shanghai. Maybe I would like to go to Beijing or Japan. Maybe I want to go to America. Maybe I want to go to a better place, not a place of the same kind...’

Zhuorya is a typical of the interviewees who had clear ideas about their pursuit in life when applying to Higher Education Institutions, but since their choices were limited by their CEE scores, their dream of 'going to a better place, finding a better platform' could only continue after graduation. In other words, for this kind of student, going to Wuhan is simply an alternative choice. The only function of the region that has fulfilled their need is the educational function - other aspects of the region do not have strong attractiveness for them. This might change during their four years as a university student in the region, but during the period when they decide on their university, the key note of 'This is not the best in my mind, but it's also an option' (Zhuorya) has already entered their mind.

6.1.2 How should I choose? (Lack of information, life pursuit; parental will)

So far, two of the interviewees who showed positive attitudes towards their location choices when they applied for university specifically noted their interest in Wuhan itself. Song (mentioned above), who had moved around since childhood, noted that she had developed the capability to adapt to different places. She felt good about Wuhan since it has periodical offices that she liked because they publish magazines that she used to read, and her CEE score just reached the level required by universities in Wuhan. The other interviewee who was positive about Wuhan was Anna, who majored in mathematics at CCNU. She came to Wuhan because her CEE marks met the entrance requirement for CCNU and she enjoyed the historical atmosphere there. At the same time, CCNU was the best university that she could attend based on her CEE scores.

While there are students who have a clear plan about their future, the majority of students do not have a specific preference for an higher education institution location. Before the CEE, it is common for high school students to focus on getting the highest possible scores in the CEE in order to get into a better higher education institution – which generally refers to the university's ranking and overall quality. Once they have reached the CEE target, and

at the critical point of making one of the most significant decisions in their lives, students can be plunged into confusion.

The lack of information sources makes this decision even more difficult. White, an art student majoring in fashion design at HIFA, recalled the time when she applied for her major:

White: ... so I only applied for HIFA, majoring in fashion design... I did not think too much about whether I wanted to study this major. At that time, I was too blind in the choice of majors. I did not make sufficient investigations...

However, later on, White chose to learn new skills to become a game artist instead of searching for employment in the fashion industry. When talking about her attitudes towards the major choice she made, she recalled:

White: ...But at that time, it was not clear what the difference was between the major of fashion design in the Academy of Fine Arts and the major of fashion design in a comprehensive university. Then I came over and found that it was totally different from what I had imagined.

White chose whichever university was far enough away from home due to family conflict, making her choice of university and major even more blind and aimless. She applied to the only art institution where her scores reached the required standard (HIFA in Wuhan), and to a major that she thought she might be familiar with, without researching carefully into the university and the major for which she was applying. This reality-expectation mismatch ended up becoming one of the reasons for her job-major mismatch.

Reality-expectation mismatch was a common theme in the interviews. Compared to other substantial information about universities, the official comprehensive university ranking seems to be one of the most reliable factors that students can use as a reference when making applications. The interesting finding here is that, for most students, their destination decision is made based on nothing other than where the university is located. But for the major, many

students ended up either choosing a higher ranking university or a higher ranking major; or a major that they liked, but in a relatively lower ranking university. Here is one example:

Lew: I just chose the university where I could both reach the standard score and choose the major I like.

Lew majored in computer programming, and is currently employed by a well-known Chinese internet company as a programmer. His decision to study computer programming in Wuhan not only fit his own interests, but also his preference for staying closer to home. However, not everyone has good results like Lew. As previously suggested, semi-voluntary choices (which refers to cases such as Lew and White) are limited by CEE scores, lack of information, and unformed values - but another factor can be parental pressure. Perhaps it is because this is one of the most significant turning points in a student's life, and because of all the difficulties that students face in making the decision for themselves, that parental suggestions or instructions have greater weight. The final decision can be influenced by parental values and family education.

6.1.3 'My parents didn't allow me to...'

As White stated when talking about the reasons for choosing fashion design, it was partly due to her interest in the subject, and partly due to family expectations. There are students who gave the right to make this choice over to their parents.

Ada's situation is a typical example. She ended up studying educational studies, which she was not really interested in, at CCNU in Wuhan. When she was asked about the reasons for studying in Wuhan, she recalled:

Ada: I wanted to study in other places. My parents didn't allow me to.

Researcher: Why?

Ada: Because they wanted to make me stay in Wuhan. They were afraid that I would fall in love outside and marry out.

Researcher: Is that all?

Ada: Yes, they also thought that if I stayed closer to Wuhan they would be able to take good care of me, so they made me stay in Wuhan.

Not only Ada, but other interviewees also talked about the strong pressure from their parents to stay close to their hometown, or go to local universities - especially female students. Before female students even apply for university, parents put pressure on their daughters to go to a local university. Also, females are usually encouraged to study more 'feminine' subjects such as education or languages, and the counterpart employment system (where, in certain labour markets only graduates from certain disciplines can be employed) and strong disciplinary gaps (where students who do not have the corresponding professional degree will have difficulty searching for jobs in certain areas) set barriers for students from certain disciplines when they graduate. This might be one of the reasons why strong gender disparities appear in this research. This will be discussed in detail in chapter 7.

Obviously, Ada was not satisfied with this arrangement, but she had not opposed her parents any more than she would have done as a small child. Ada: '...it's not very tough. It's just that they'll tell you that they do not agree. Then I do not usually say I'm against my parents...'

This situation becomes a latent seesaw battle between parents and their children. A student might try to take back the initiative by compromising between their parents' will and their own demands, trying to make their own choices within certain limits. With Ada, she applied for the university that her parents wanted her to go to but she also expressed a preference, on the application form, for another major at another local university that was, relatively speaking, more attractive to her. However, the admission score cutoff of her alternative choice that year was unusually high:

Ada: My parents wanted me to fill in CCNU, I didn't want to, so I put CCNU behind that university. I thought I would be admitted to Zhongnan University of Finance, Economics and Law, but that year, it was higher than CCNU. Then I didn't get it...

Students themselves seem to feel that there is nothing they can do in this situation when they have strong willed parents. Ada seemed helpless as she described the situation where she had a chance to change her major to preschool education at the end of her first year in university, but she couldn't because:

Ada: '...They (my parents) will feel that if you teach those 'abnormal' children, you will feel that you will be affected, and then they will disagree (with you doing this major) anyway...'

At this point, Ada decided to give up. She had put all her hopes into trying to apply to Zhongnan University of Finance, Economics and Law, and her second choice seems to have been more random and simply based on major ranking:

Ada: '...Because I didn't think that I would go to CCNU, I checked out the top majors in the whole country, and then education ranked third in the whole country, and it was the first one, so here I am...'

Sometimes this conflict between parents and students is more obvious and drastic, where students show a stronger desire to take control of their own lives, while their parents hold contrary opinions. Sue is an extreme case in this situation. Sue was a student in HIFA, who was keen to study abroad in Japan and engage in the game or animation industry. When he talked about his experience of 'compromising with parents and with life', he said:

Sue: People will compromise. People will have a plan A and will have a plan B, too. My plan A, at that time... I could have skipped the College Entrance Examination (CEE), I didn't want to take the CEE route and wanted to go abroad directly through an intermediary... But I was denied. My family is also stubborn, and said 'Since you CAN participate in the CEE, why don't you participate?'... At that time, I didn't get very high marks in the exam to go to the Central Academy of Fine Arts (CAFA), but it was the kind of score that I could get in by paying some extra money. But our family were all against that, saying that they are not willing to pay the money... It was a preparatory course in CAFA, but I would also have been able to go abroad - not Japan but the United States... Well... I compromised.

I compromised again and again, and finally went to Shenzhen University... The policy of Shenzhen University is good. Just like HIFA it has a policy of exchange with South Korea, it is in China until you finish your sophomore year, and then in the third and fourth year you can be sent to Korea.

After compromising with his parents for so long, Sue finally got the chance to choose a university he would like to go to. Although it was not his number one choice, Shenzhen University seemed to be acceptable to him. He then filled out the application form. However, he underestimated the domination of his parents.

‘My college application form was modified by my mum...’ said Sue, wryly, ‘...and it wasn’t changed by my own will. My family changed it. They had the idea that they didn’t want me being out of town... At that time, I filled in my first wish for Shenzhen University... After all, I wasn’t an adult at that time. I was still at a young age, so my mother changed my wish to HIFA.’

After this dramatic conflict, Sue totally lost trust in his parents, especially in his mother who changed his original university application form.

Sue: I keep long hair not because I want to keep it, but mainly because I want to go against my mother... We haven't talked for two or three years. I do not want to talk to her. I think it's too much. She doesn't respect my self-awareness at all.

This kind of dominating authority from parents, the idea that they are helping their children stay on the right path, the ignorance of their children’s independent will and even excessive interference in their children’s personal decisions, can not only led to estrangement between parents and children, but can also become one of the factors in the reality-expectation mismatch during university, and the job-major mismatch when graduating.

‘...Education (students) cannot find a job at all.’ says Ada. It is a common situation for students to choose universities and majors depending on their national ranking, especially when they cannot get enough valuable information on either, and have to decide within a short time limit.

Sometimes there will be compromises between the ideal situation and reality. In some situations, this compromise is based on a student's personal wishes, at other times students make compromises according to their parent's wishes or external restrictions. However, this type of compromise, or listening to parental suggestions, is not always something that has bad results. It can also become a concession in the process of achieving longer term goals, for example, 'going to a better place'.

6.1.4 'I should go to a better place' (a compromise between ideal and reality)

Zhuorya: I personally think that I should go to a better place when I am young.

There is a common purpose for both students and parents in the university and location selection, which is 'going to a better place'. Not all interviewees expressed this purpose in the manner Zhuorya did, since their definition of 'better' for a place (university) differs.

Unlike Ada's parents, Zhuorya's parents had been encouraging him to go as far as he could since he was a small child. The aim was quite clear throughout his moving experiences - to find a better platform for future development. Since he was born and grew up in a small border city in Guangxi (Western China), which, in Zhuorya's words, 'is quite backward, a small county on the Seventy-eighth tier', the most efficient way of realising this aim was by outward moving for educational purposes. Zhuorya moved from Dongxing, Guangxi (Western China) to Hangzhou, Zhejiang (Eastern China) for art training, then moved to Wuhan (Central China) for higher education.

For some students from relatively backward regions, the first step of moving to a better place is to move 'out' from their original region. The imbalanced development between West and East, and uneven resource distribution between urban and rural regions makes outward

migration from home towns more frequent in these cases. Big cities in Central China can become one of their best choices as the first step towards an ideal life that they want.

Max explained the procedure:

Max: ...We moved to Wuhan first... their first priority was "get out". The second thing is to find an even better place.

Two similar cases were Jenny and Zoe. The former came from a relatively backward rural area in Anhui (Central China), and intended to go to an higher education institution in Shanghai but ended up going to CCNU due to her CEE scores; the latter is originally from a small city in Western China, and expressed a strong preference for urbanised life.

Jenny: Well, since Anhui is central, but central is close to West or South, we usually want to go a little bit further out, like Zhejiang, Jiangsu and Shanghai etc.

Zoe: It may be that I prefer the urbanised life. I think development there is better than ours (home town), because you see, I grew up in the West, and there is a strong contrast. So, I prefer a more prosperous city, a kind of fast and convenient life with everything. (laughter)

This desire for a 'better life' and 'going out' may continue to motivate these students even after they graduate from university, perhaps offering an explanation for the 'springboard' or 'elevator' effect of Central China.

There are also students who were explicitly encouraged by both their head teacher and parents to do anything in order to go to a higher-ranking university. An example is Lulu, who, since her original academic performance was not good enough to apply for a higher-ranking high school, was sent by her parents to external art training institutions to study art and benefit from 'arts expertise policies'. These allow junior school students who have specialities (skills) to gain an extra 30 points in the high school entrance exam. The same thing happened again at the high school stage. Lulu related her experience of deciding to apply to HIFA in Wuhan like this:

Lulu: ...Doing art is because that ordinary high school is... It also pursues the rate of admission in the College Entrance Exam... It's easier for art students to go to first tier or second tier universities, because our ordinary high school children have poor academic performance... (my teacher said) 'your grades can not go to first or second tier universities, but if you learn art, you can make it, or even a better uni.' He talked quite persuasively and then it turned out that he was right.

When she described her feelings about studying art, she said she was bouncing back and forth between her interest in art and the pressure of going to a better place for future development. Currently in China, the CEE and higher education are seen as a gateway to a brighter future, and a compromise between ideals and reality is very common, especially when students do not have a clear idea about their future plans.

In response to this issue mentioned above, where students choose to study something they are not interested in simply to go to a higher ranking university, Zhuorya had a different opinion:

Zhuorya: ...Many of my classmates felt that they couldn't get into a better school via the normal examination, so then chose to take an art examination. I personally feel that the idea itself is sadder... Maybe they don't have anything they like. Well, maybe art is just one of the things they don't dislike very much. It's not necessarily what they like.

For students who are really passionate about art, there is an unfortunate reality that there are a great number of students around them who entered art institutions for reasons other than their enthusiasm for art itself. Rather, many choose to study art as a way of entering good universities despite lower CEE scores, and this makes students who truly love art lose confidence in their campus life and the art industry.

Sue felt especially despondent about the slothful learning environment in HIFA.

Sue: I don't think there is a learning atmosphere in HIFA. I am surrounded by a large number of people who do not want to draw. Every year. Anyway, I feel that if I love a career, I will do it. But I feel that the people around me just want a diploma, there is no enthusiasm.

6.2 University experience and changing ideas

With different purposes and for various reasons, students eventually arrive in Central China and become university students. The four-year university experience not only strengthens their professional knowledge and increases their human capital, but also acts as a significant period for shaping their values, finding out what is most important to their future and the realisation of self-fulfilment. During this period, students experience the transition from being perplexed, reflecting on their choices since they entered university, and enriching their life experience to have a clearer plan by the end of their fourth year.

This section presents this transition process from the stories told by interviewees.

6.2.1 Unmatched expectations

University life has been advertised as cosy, relaxed and comfortable for high school students who are under the huge pressure of the CEE. In order to motivate students to study, teachers and parents produce rosy scenarios about the ideal situation in university. Like Song claimed:

Song: ‘... (It’s) different from what I imagined at the beginning - at the time in high school... Life being very easy, lying in my bedroom all day long. (laughs) Because all the high school students at the time had these sort of unrealistic ideas you know. Maybe all the high school teachers are scamming students like this.’

After entering university, Song was relocated to the school of law, a major that is far away from the mathematics that she wanted to apply for. She suddenly realised that university life was much more stressful than she imagined. Unlike many other students, who only take one degree that is related to their high school discipline, Song was taking two separate degrees in Law and Economics, which are not related to the general science disciplines that she learned in high school. She felt frustrated that she could not catch up with students from the liberal arts, who already had a knowledge base in law in their first year.

Song: ‘Well you can’t say that they are completely liberal arts things, but the most boring things in the first semester were the constitutional things, legal things, and Marxism. These were more difficult, especially when the liberal arts students could talk about them all the time, and us science students could only sit there and listen. But when we started to gain some practical knowledge at a later stage, the gap between the arts and sciences became smaller, and it was okay for me. However, my grades weren’t that good... like, lower in the ranking in my class.’

It is a common situation that students find discrepancies between what they experience in university and what they expected before entering university. This mismatch might be caused by various factors. For example, as mentioned in the last section, choosing certain universities and certain majors based on parental wishes, a lack of information or misleading information about universities and majors that students receive, and in Song’s case, major relocation.

The major relocation and university entry quota system (which will be presented in detail in the next chapter about structural factors in graduate migration) reveals the unfairness in the CEE and higher education institution enrolment. Each university has limited places in each major for students from other provinces due to regional protection policies (quota system). This makes it more difficult for students from other provinces to apply to local universities. Therefore, in order to go to a relatively better university, some students will choose to tick ‘agree to major relocation’ in the application form, which allows you to be relocated to other majors in the same university when your CEE score is above the minimum passing score of the university but not high enough to enrol in your ideal major. This major relocation system reduces the possibility of having to withdraw your profile (application) and falling into the next admission batch in the parallel higher education institution application system (平行志愿). In the parallel higher education institution application system, an application to the first-ranked school is sent for each student. Throughout the allocation process, a school can hold no more applications than its quota. If a school receives more applications than its quota, it retains the students with the highest priority up to its quota and rejects the remaining

students. Whenever a student is rejected from their first-ranked school, their application is sent to their second-ranked school. If a student is rejected from their second-ranked school, they can no longer make an application in that round. Throughout each round, whenever a school receives new applications, these applications are considered together with the retained applications for that school. Among the retained and new applications, the ones with the highest priority up to the quota are retained. The allocation is finalised every two choices. That is, if a student is rejected by their first two choices in the initial round, they participate in a new round of applications together with other students who have also been rejected from their first two choices, and so on. At the end of each round, the assigned students and the slots assigned to them are removed from the system.

In the case where a student's CEE score does not give them a particular advantage in choosing a better major, in order to go to a higher level university, students will compromise and agree to go to certain less popular majors in the same university, following the general aspirations in their application form to some extent. In other words, students who have been relocated to majors that they are not particularly interested in might find their experiences in university to be different from their expectations.

Even if reality does not match their expectations, some students, like Song, still manage to adapt to their situation. Other students had regrets about applying to their major or their choice of university, and these students often had complaints about their situation.

Eutyclus: 'In fact, everyone in high school was busy studying. Then I volunteered to fill in whichever rank was higher. Then I found that I was not suitable for the industry (that I'm majoring in).'

Panda: 'Because it's mainly my original teacher who told me - I used to believe in my teacher... He said: 'You must be a pure art major if you want to go to art school. If you don't want to go to a pure art major, what art school will you take?' Then I chose oil painting. Later, I regretted it.'

Lue: 'Well... HIFA's clothing design department, the practical ability is very poor.'

Some students complained about their university environment as well. This was more common in art institutions. As mentioned by Eutyclus, ‘everyone in high school was busy studying’, the idea of living a relaxed and lazy life in university is like a huge release of the tension from their stressful high school life.

Lulu, an environment design student in HIFA described the phenomenon like this:

Lulu: ‘Well...Very scattered... What I’m talking about is spiritual laxity. We are all children who have been forged for three years in senior high school (for the CEE). University students should take more initiative, but when you come here, you will find that...Why did everybody suddenly give up? ... I say this atmosphere is a big drawback.

The other reason for this unmatched expectation is the more experience they have, the clearer idea of what they want in their lives, the more they will find that what they have experienced and what they have chosen is not as expected.

6.2.2 Rethinking decisions, changing plans

When experiencing university life that has discrepancies with their expectations, students usually have two different coping styles - they either change their future plans after reflecting and re-examining their decisions, or stick to the same plan, but change their expectations and way of thinking.

In the interviews, 12 out of 23 students reported the idea that they or their peers might change their future plans. Methods included changing major, defaulting on a pre-service teacher contract, learning new skills at a training institution outside university, and applying for jobs in other industries.

This changing plan has two significant critical moments:

- a. First or second academic year (when students are able to change their major)

- b. The last academic year (or the period in which students are finally facing the labour market, after internships)

Through the interviews, the researcher found that changing plans is more common for students who are facing the situation that the discipline they are majoring in is no longer attractive to them, not suitable for them, or unlikely to support them in finding an ideal job.

Researcher: Why didn't you consider looking for a job related to your major?

Max: Because, pure arts department, no job... The printmaking department itself belongs to fine art. If you want to find (a job related to) fine art, you can either take a teacher's qualification certificate, go to a studio, school or become a teacher of art, or... Go to be an artist... When an artist you know, a department, dozens of people, cannot be artists per capita... It is not a job. When being asked "What is your job?" No one says, "I'm an artist"... An artist is an identity, it's not a job! You are equal to freelance!

Max, a student who was majoring in printmaking at HIFA, described the employment environment for fine art students as above. Only a small percentage of students in the fine art field can finally become fine artists after graduation, with necessary family financial support and background, since the level of artists in the Chinese art market is also related to their social status/position. Other than becoming a fine artist, the main occupation available to fine art majors is becoming an art teacher, which is relatively limited. Therefore, Max enrolled in an off-campus game art institution and started learning new skills in order to become a game artist in game companies.

Sue had a friend who found themselves in another situation - changing his major because the discipline he applied for when he entered university was no longer attractive, or not suitable:

Sue: '... There is a classmate in Beijing Institute of Fashion Technology (BIFT) who is from Chenzhou, Hunan Province. He chose to major in fashion design when he entered BIFT, but later felt that this major was not suitable for him. Then he changed his major to visual communication.'

Eutyclus, a student who was relocated to the mining engineering major, also chose to change his major. As he said, ‘I was working really hard and successfully changed my major into the electronic science and technology promotion major’. Changing major is not easy, due to changes to rules in CCNU, WUT and HIFA in 2018-2019. Students get only one chance to switch their major, and this usually happens in the first or second year after entering university. On the one hand, this system not only requires that students who apply to change their major have superior academic achievement by the time they apply, but also asks them to reach certain criteria in a major changing exam if the destination major is in a different school in the university. This means that not all of the students who want to change their major will have ideal results. On the other hand, stepping out of a comfort zone while changing major means saying goodbye to previous friends and social relationships, and so changing major can take a lot of conviction and courage for students.

Amongst the interviewees, only Eutyclus had successfully changed his major. For students who want to change major but find it more difficult to realise, especially students who have the extra difficulty of changing major between schools (e.g. contracted pre-service teachers), there are a range of solutions: some of them choose to do a double major, or, as mentioned above, learn new skills from off-campus institutions, or simply default on their pre-service teacher contract.

Jenny: I liked to learn French before, but I wasn’t good at learning it. That’s why I felt I must learn something else to increase my self-confidence.’

Jenny, after feeling that she wasn’t suited to learning French, decided to start a double Bachelor’s degree. By coincidence, she found a major that she was really interested in:

Jenny: I wanted to learn international trade originally, discovered it was full at the point when I tried to apply, so I went for marketing... It’s like the final exam for us lasts for two months, I’m more stressed and tired than other people who only have one month of final exams because they’re only doing one degree. But I think it is more interesting to me, I think it is ok.’

The result turned out to be good, as Jenny found a job in a French company using her human capital in both Marketing and French after graduation.

For other students who chose to learn extra skills, most of them aimed at the game industry, with related skills including concept art, UI design, character design, 3D modelling etc. Amongst the students who changed their original plan, 5 out of 23 students chose to study game art or work in an art company, and most of these students were from HIFA.

Other students either found that the unexpected situation actually turned out not to be a bad result, or drifted along with their current situation. In the interviews, nine of the interviewees held a relatively negative opinion of the discipline they were majoring in - however, in the questionnaire, among the total number of 531 respondents who reported their employment status or that they intended to find a job, 78.7% (418) still found jobs that matched their major.

Anna stated her dissatisfaction with her major, Mathematics:

Anna 'I actually hate this! I've given up maths! (laughs)... My classmates do this and that in the laboratory every day, and then I feel very empty about learning this stuff. There is no practical operation, just some theory, right?'

Despite this dissatisfaction she found a job as a maths teacher in a high school (which matched her major as a non-free teacher, where students receive teacher education but pay the tuition fee and do not sign a pre-service teacher contract with the government) and did not continue on to postgraduate education. Anna felt satisfied about her choice, since the place she was going turned out to be a good place for her and the job opportunity was also fairly good.

These are behaviours that make differences to a student's original plan and may cause their migration aspirations after graduation to branch towards different routes.

6.2.3 New experiences, information, and comparison between different places

Through the survey, it has been clearly shown that the majority of graduates tend to choose places that they have been to or are familiar with. Specifically, about 25% of respondents chose places they had visited once or twice, but had never lived there. The home town - university migration and the four-year experience of living in a new city provided an opportunity for comparison for students originally from other regions. In the survey, the information gathering and the shaping of their intended destination often manifested through their comparisons between the places where they originally lived (original domicile), the place they were currently staying (Wuhan), and the places they intended to go to after graduation (potential destinations).

Tom was originally from Linfen, Shanxi (山西临汾), a prefecture-level city in Central China. This province is located in the northern part of Central China. He chose to come to Wuhan out of curiosity, but ended up feeling quite disappointed:

Tom: ... Because I haven't been to Wuhan before, and I was also curious about Wuhan before. After I came here, I found that this side is actually conservative and backward in many aspects... For example, it's related to our major, because our major is relatively close to machinery manufacturing. Then I've seen some factories and other things here. But I feel that some production technologies and some management modes are relatively backward. It's still primitive.

Based on a general impression about the Eastern developed areas, Tom decided to go to Shanghai, a place that he had never been to. Tom considered Shanghai more 'cutting-edge':

Tom: I said that a more cutting-edge city like Shanghai might be better, so I think I'll have a chance to have a look there later.

Travelling to other places during university also adds new information to destination choices. Comparisons include various dimensions, including the similarities and differences between regions. Usually based on the impression of a city as a traveller, students at a stage where they have not yet had clear migration aspirations will gradually construct a general idea about possible destinations, and places they would not want to consider as options.

There were students like Gus, who found certain places he found comfortable to live in, in some senses, fit his demands and preferences while travelling.

Gus: Yes, it is. Because I have been to Chengdu before, I feel that place is still good. After we finished the viva, several people in the dormitory went to Chengdu for travelling. Chengdu is also under construction. Although it's under construction, I don't know why I didn't feel as bad as Wuhan. It just felt that it was building, but it was not so messy, and then the pace of life would not be so fast. I don't think everyone is in such a hurry. Then I went to the surrounding area not only in Chengdu, but also in Emei, for example. I thought the natural environment was good. And the weather is not very hot, compared with Wuhan.

There were also students like Jaimee, who had unpleasant experiences or impressions about certain places during travelling, and decided not to take these places into consideration after graduation:

Jaimee: I travelled to Guangzhou for a few days. I also think there is something about their streets. We went to hang around for two days and stayed there. It's not very good, that city.

There was another type of interviewee, who tended to go somewhere that they had never been before, like Tom (mentioned above). However, they still gathered information about their intended destinations. This information was either from a city's reputation - often based on the impressions of (or stereotypes about) certain regions, or from the travelling experiences of their friends.

For example, Zhuorya was originally from a small border city in Guangxi in Western China and had a strong intention to go to Guangzhou (Eastern China) after graduation. Zhuorya

expressed his opinion about traffic conditions between Wuhan and other places based on his friend's experience:

Zhuorya: As far as I know, although there are many people's problems in other places, it won't be as bad as squeezing into the subway like Wuhan. It's such a sad intuitive feeling! Before, one of my classmates also told me that he had been to Guangzhou before, that is, to go there for a walk, and then he said to me: 'The subway in Guangzhou is so damn cool!'... He said he had been to Chengdu before, and that was true there as well. Although it was very hot there at that time, squeezing into the subway would not feel as terrible as in Wuhan at all.

There was a common situation among the interviewees, that their perspective on (or opinion of) a region was different depending on whether or not they had been to a specific place in person, or whether or not they had gained information first hand. As previously mentioned, the accuracy and adequacy of information influences the range of options in the destination choice. The most obvious evidence of this was the opposing opinions about Western China. Some students held negative opinions about going to Western China - in these students' opinions, this region represented 'danger', 'poverty', and lack of resources. Here are some examples:

Anna: It's so poor. It's really poor over there. And there really isn't much to look forward to.

Zhuorya: Because after thinking about it, it seems that the Western region is not even more developed than the Central region.

Ada: ... They usually don't think about the area, but they will go to see the job they prefer. But there are fewer to the Northeast and fewer to the West.

On the other hand, some students who had been to Western China in person, or had more information, had less psychological resistance than those who judged regional attractiveness based on broad impressions or stereotypes. Panda specifically mentioned that he did not object to going anywhere, including Western provinces like Xinjiang.

Panda: ... (I'm) willing to go even to Xinjiang! ...Xinjiang is kinda OK. My father is a journalist. Then he went to Xinjiang to interview before. When he came back, he always told me that he must take me to Xinjiang next time. He said that Xinjiang is much better...'

Panda's choices were wider than most of the interviewees because he had been given positive and detailed information about Xinjiang by his father, who had travelled to different places as a journalist. The same situation happened with Sue. During university, Sue travelled to most parts of China, and he had both a wider range of choices, and clearer preferences about the characteristics of different regions.

Sue: 'Because in fact, I have been to most parts of the country. I like these cities more personally: Qingdao... I hate Beijing. I don't know why... Guangzhou, then Chaoshan. I'll be familiar with the place below Guangzhou (on the map) because I've lived there for several months... Then there are Sichuan and Tibet, which are some of the places I would like to go.'

However, the definition of adequacy and accuracy of information is considerably more complicated than it appears, and the relationship between regional attractiveness and information adequacy still needs to be discussed. Travelling experience usually only provides people with a general and primary impression of a city, and cannot cover all aspects precisely. Perspectives on a city and the major concerns about a region will vary with shifts in the identity of an individual, in other words, living experience in a city would be different from short-term travelling experience.

For example, White had previously had a boyfriend who came from Xinjiang. She received information from another perspective.

White: I had a boyfriend in Xinjiang, and I broke up. Then, he told me a lot of negative things about Xinjiang. It is... Plus, after breaking up with him, I found that the characteristics of Xinjiang people also made me very scared... So I may try to avoid Xinjiang.

Zoe, who was originally from Western China, observed the following phenomenon:

Zoe: ... I think of a very interesting phenomenon. It's my classmates from Southern China. When they graduated from uni, they always wanted to go to the West for a graduation trip. For example, Tibet, Qinghai, Gansu, they just want to have a look. And usually their feedback is very good when they come back. But once someone told me they wanted to work in the west, I would advise them: 'Don't go, don't go, there's really nothing to go to.' (laughter) I think people in the West don't like the West.

Although students who travelled to Western China showed positive feedback and strong interest after coming back, like many other students from Western China, Zoe did not suggest setting Western China as a migration destination. Through her life experiences in Western China, she experienced most of the positive and negative aspects of a city there, and had a more precise and objective view. 'It's very backward' said Zoe.

The adequacy and accuracy of information about a region is related to student's willingness of choosing a region as potential destination. This relationship might also, to some extent, explain the repeated migration of graduates in Higher Education Institutions in Central China, since four-year university experience is relatively adequate for gathering information and judging various aspects of a city.

6.2.4 Finding out what I really want (shaping of values)

Throughout the process of changing plans and having new experiences that students go through, it is interesting to see how much their values change during their four-year university experience. Lulu summarised her opinion on how people finally make different choices in life after graduation like this:

Lulu: Yeah, like my classmate, she told me that she got up earlier than seven o'clock every day because she had to go to work. I said I like to wake up naturally and sleep until 9:30. She said, 'Yes, you've got something in the last four years, it's just about how you value it.'

The key word in what Lulu finds most important is 'sleep', which refers to a stable and comfortable lifestyle:

Lulu: It depends on what you want. I think plain is good! Others pursue a big house with high salary. It seems that I can pursue a more stable life, and I feel quite satisfied with it.'

This idea, of course, did not just appear suddenly. At the very beginning, like every new university student, Lulu also experienced a period of being anxious and confused about the aimless university experience. When she looked at students from other universities who were studious, Lulu felt anxious. This was not only because her peers in other universities were working hard while students in HIFA seemed relatively lazier, but also because her peers were chasing a certain target while she was still in a period of confusion about what she had gained from four-year university life. Like many others, Lulu also tried an internship, in an administrative personnel department in a big company. She experienced life where 'I had to be there when I was called' and 'apart from sleeping, I was basically answering news or getting things for others.' (Lulu) The internship did not suit her very well, and having had this intensive work experience, Lulu finally discovered that a life similar to 996 (a Chinese expression referring to working 9AM to 9PM, six days a week, which also commonly refers to the busy office lifestyle) was not the ideal lifestyle for her.

Lulu: Then I think it's better to find a guaranteed and stable one... I knew that there were people behind me who did not have to bear the consequences myself. It's just that I think there are differences between relying on capitalism and relying on the country (public institutions or government owned companies) ... you will quickly be discarded when you have no value for use, and they will try every means to extract your surplus value when you have value.

In Lulu's opinion, working as a screw in the capitalist machine is highly risky and stressful. What she really wanted was to find a stable job and live a comfortable life. Therefore, she said that she did not even hesitate when choosing to stay in Wuhan. When she was asked about her ideal places to go, her answer was also based on the importance of a slower pace of life and good humanistic environment - such as whether people are warmhearted and polite. In her words, this makes her 'feel quite comfortable'. Of course, personal career

development prospects were also under her consideration, but Lulu strongly resisted going to first-tier cities in the Eastern coastal area (such as Beijing and Shanghai) which have significantly better development opportunities than other regions. 'I don't think I can handle the pressure' said Lulu.

Different to Lulu, whose values were developed from nothing, there were also participants who originally had a general plan about the future, but found out that their plan was too idealistic and difficult to realise. White gave an interesting example about her roommate's process of changing her mind. This example also represents a type of modern young person's value system:

White: ...There are two local roommates in Wuhan... At that time, I was discussing what kind of plan I might have in the future...I was really shocked when I heard their answer... 'Oh, it's almost time to have children when I graduate, so I'll find a good husband to marry.'... When she was in her senior year, I suddenly found that one day she came back and talked as if she had matured a lot and her ideas had matured a lot. She said, 'Oh, I think it won't be so simple. I'll try to find a job or something in the future. You can't really depend on others to support yourself or something.'... Everyone's ideas change tremendously after a certain period of time!

For middle class students who already have location specific capital in a certain region, the uncertainty and changeability of values is common, and the wriggle room provided by their family gives them more space for trial and error, and to explore what they really want. During this process, as mentioned in the last section, new experiences play an important role. The dramatic change in White's roommate, who initially had 'finding a good husband' as their target, reflects the process of quantitative alteration to qualitative alteration of values. The consequences of this value shift influence the destination selection process in the next section.

6.3 Facing graduation - Destination selection process

By the time students took part in this research, they were in their last semester of their last year at their universities. These students were asked about their future plans, and the majority of them had certain expectations related to what their life would be like in the immediate future. Also, they were able to state the more direct reasons for their aspirations of living in a certain area after graduation.

In this research, there were three types of student, in terms of their range of options in migration choices:

1. Students whose destinations were quite limited and pre-decided. These students had external constraints that limited their choices, for example, pre-service teachers who were contracted to move back to their provinces of origin, and students who followed their parents' wishes to move back. These students had the smallest number of possible choices.
2. Students who chose postgraduate education. These students had more possible choices than the first type of student. The decision-making process for the location of their postgraduate study was different from when they chose their Bachelor's degree location. University education quality and other factors related to the region itself, such as working opportunities and living environment, were also important to these graduates.
3. Students who did not have many restrictions. This type of student had more choices and initiatives in graduate migration.

Other than those who are pre-service teachers (those who decided not to default on their contract), or who need to move back to their province of origin, or are seeking postgraduate

education, students have more options in their migration choices than in the time that they migrated to Central China for higher education.

Even for pre-service teachers, they are still able to decide whether or not to default on their contract and pay their tuition fees back to the government. Students who took the Postgraduate Entrance Exam (PEE) can have more opportunities to decide which region, which province, which city and which university would be ideal for them. By gathering a greater amount of information consciously and purposefully, aspirations can be even clearer and students can have more confidence in deciding their destinations.

For these three types of different graduates, the direct reasons or drive for their migration aspirations are different, and need to be discussed separately.

In this section, the direct motivation for migration when students are facing graduation, and their destination selection process will be presented. To begin with, one of the most important conceptual frameworks should be highlighted again, the ‘regional attractiveness pyramid’ which was suggested by Niedomysl in 2010.

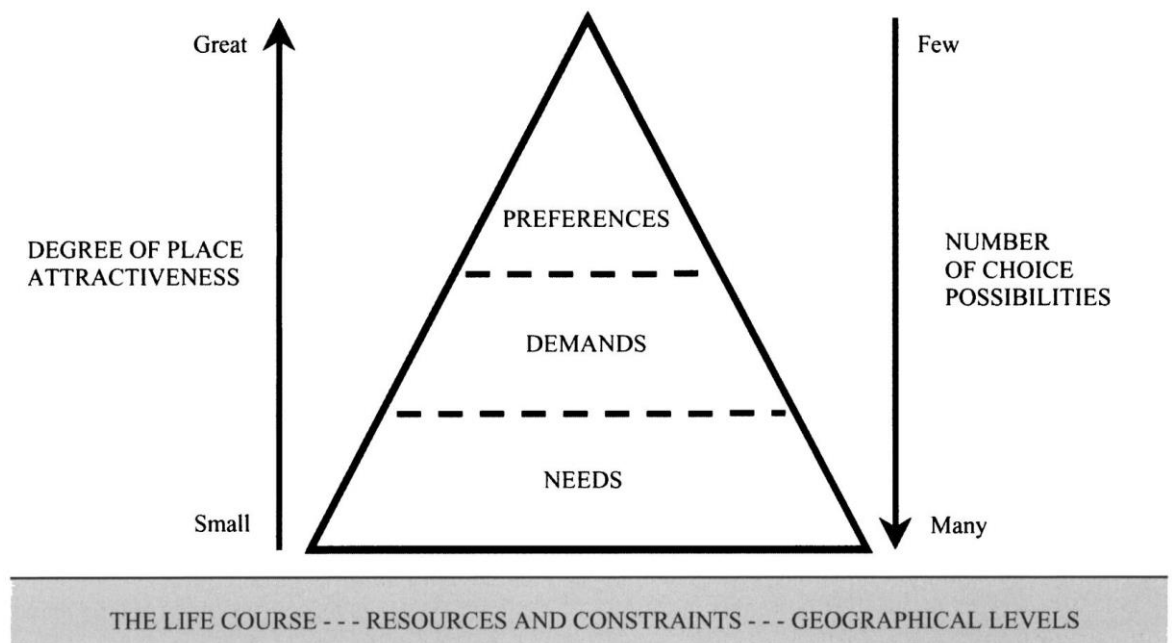


Figure 61. Regional attractiveness pyramid

Credit: (Niedomysl, 2010)

In the regional attractiveness framework, the pyramid represents the hierarchy of factors in motivating migrants' destination choices.

- Needs - Refers to the most fundamental criteria for voluntary migration, the largest range of migration choices (broader than the basic human needs)
- Demand – demands are understood in the framework as factors that must be fulfilled for migration to take place but are not necessary for survival, what people usually regard as their main, or most important, migration motive (primary driver of selecting a destination)
- Preference - What people usually regard as “that something special”, but could nevertheless be compromised on (fewest number of choices)

The extent of regional attractiveness is positively related to the ability that a region has to fulfil one's needs, demands and preferences. The number of possible location choices decreases with the degree of fulfilment of one's needs, demands and preferences. However, the definitions of these three layers are not clearly divided and immutable. They change or exchange with each other when influenced by other factors, such as life-course related factors. In this research, the researcher found the destination selection decision making process of the graduates to be somewhat consistent with this conceptual framework.

6.3.1 The pyramid of migration destination choices

Niedomysl argued that needs are the fundamental and primary elements for understanding regional attractiveness, but migration here refers to voluntary behaviour. Since no voluntary migration will select a region without survival potential, 'needs' refers not only to physiological needs (such as food, water, housing, etc.), but fundamental factors that rapidly

narrow down the number of potential destinations. These needs mean different things to different people.

The students in the interviews barely talked directly about their needs in their destination choices, but instead, the use of words such as ‘as long as’, ‘mainly about’, ‘the first reason’, ‘priority’ are indicators of the factors that they considered as priorities in their migration decision making progress.

Panda: ... As long as your salary and standard of living are good.

Jaime: ... I found a suitable job in Hebei Province, which is suitable for my major, and is a good platform. Then I chose Shijiazhuang, Hebei Province. That’s the first reason...

Sam: Work is the priority. The working environment is more important...

For most students (like the students above), ‘needs’ are fundamental and broad, such as ‘salary level’ or ‘familiarity of places’. These students have a relatively large number of possible choices, as Gus describes his roommate:

Gus: ... he thought every place would be OK for him. He didn’t seem to have any special idea about where he would like to go.

Also, these students’ destination choices are essentially following the pyramid of regional attractiveness and have a few clear layers when they make decisions.

Students were specifically asked about their destination selection process in the interviews, and were usually able to clearly express their needs, demands and preferences.

Take Sam as an example. Sam was a stayer whose short-term plan was to stay in Wuhan after graduation. He described his decision-making process like this:

Sam: Work is the priority... First, considering the working environment, and then the salary, I have a general hope, if it is not too low... I don’t think about small cities for the time being, because small cities are still suitable for living, but work

or something is still a hindrance to the future... Enterprises in small cities are less than big cities, I think... I want to leave home a little bit, but not too far. I want to keep a little distance from my parents... Maybe it's better to get a job that's more inclined to what I'm good at.

In Sam's case, his needs were job related. He specifically mentioned that he did not consider small cities because of the lack of job opportunities. The demand for Sam, which is equal to the main reason he chose to stay in Wuhan, is that he did not want to go too far from home. He also mentioned that discussions with his parents played an important role in this process. As for preference, Sam mentioned that it would be better to find a job that matched his skills. However, it was clear that this was a non-essential condition, acting more as a 'bonus point' - whether this preference is fulfilled or not will not determine region selection, but might influence final job location within the city.

On the other hand, some students had very specific motivations, and rapidly decreased the number of choices in the first stage. For the first type of student, for example those who were contracted, the prior need was to fulfil their contract, and that narrowed down the choices to cities in their original province.

Allen: Because I didn't think I could really stay here. Because I signed "the contract" (laugh)!

Then there were students who followed their parents' requests, for example, Frank:

Frank: Well... My parents prefer me to go back to work. In fact, not my parents, I'm from a divorced family, mainly because my father wants me to work in Xianning.

For these students, needs and demands are basically the same, acting as their first motivation for migration choices.

Different to Niedomysl's theory, however, the researcher finds that the places that are not considered as choices by graduates are arguably essential as well. Regions that have strong

'push' factors need to be distinguished from the regions that are in the 'grey zone', in which graduates do not have enough information but also do not have strong resistance (or have strong resistance based on inadequate information).

As in the last section, the researcher emphasises the importance of information resources about a specific region that might influence the decision-making process. The places which are not included in the pyramid of regional attractiveness can be separated into two types, the places that literally cannot fulfil migrants' needs, and the places that migrants THINK cannot fulfil their needs. These regions are essentially different. Like the opposing opinions of Western China, some students judge regional attractiveness based on broad impressions or stereotypes. To them, places in Western China are in the 'grey zone' - based on the information they have received, they tend to assume that these places would not fulfil their needs. But with more information, these places might be included in the pyramid.

Meanwhile, the places that have strong 'push' characteristics, are clearly classified into the group that would not be considered by migrants.

Sam: I don't think about small cities for the time being, because small cities are still suitable for living, but work or something is still a hindrance to the future.

Zoe: I'm not going back to the North anyway... Because I have a rejection of the North. I might be... I have rhinitis, I can be allergic to the air of the North, the air is too dry. I am also allergic to some flowers in the North, so I don't like the North very much.

Depending on the accuracy and adequacy of information, these two groups that are not included in the pyramid also need to be discussed.

6.3.2 Life-course related factors

Needs, demands and preferences are different during different life phases, therefore, it is valuable to understand the regional attractiveness and migration decision making process from a life-course perspective.

As a special cohort that are in their early 20s, university graduates show strong characteristics in common. For example, similar to what has been found by Niedomysl (2010), in this phase, a special group of education oriented migrants appears. Unlike other migrants, their demands are more education access related.

One of the interviewees, Zoe, explained the general situation in her major (Material Science and Engineering). She stated that students who tend to take the Postgraduate Entrance Examination aim to migrate to universities with good major ranking, and these students usually migrate to big cities.

Zoe: OH! For our major, we have a lot of students who tend to take Postgraduate Entrance Examinations (PEE). If we get a university with a good major ranking, we will go to those places... Mainly to big cities.

In the case of students who have partners, the partnership also strongly influences some students' migration intentions. For instance, Lue talked about her romantic relationship and how that influenced her migration aspirations.

Researcher: Hmm... Then, even after you graduated - you said you wanted to go to Shanghai - did you think about second or third-tier cities or other cities in Central China before you chose to go to Shanghai?

Lue: Actually, I thought about staying in Wuhan after graduation, because I had a boyfriend before, and the relationship was good at that time. Then I thought about whether I would stay in Wuhan after graduation, and then I broke up with him.

Lue originally thought about staying in Wuhan for her boyfriend, but when they broke up, the demand of staying with her partner no longer existed. The influence of romantic

relationships distinguishes this specific group of migrants, who are in their early 20s, from migrants in other phases to some extent. (see diagram 61)

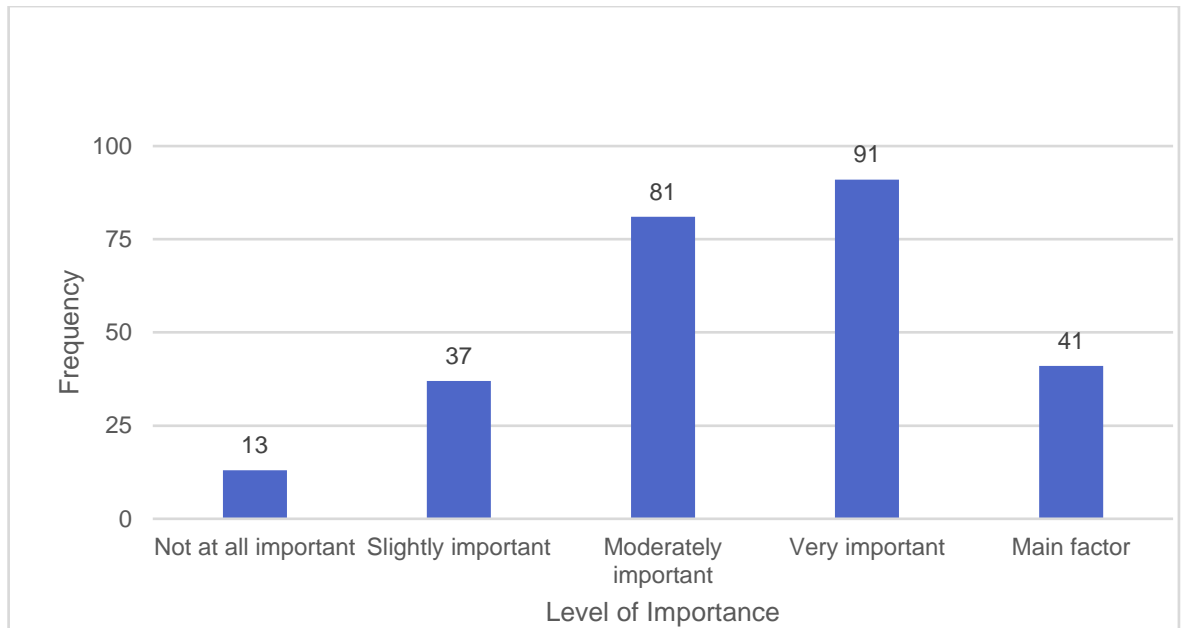


Diagram 61. Importance of Partner's location/ Partner's preference in the Migration Decision Making

In the survey, among respondents who were in romantic relationships at the time they took part in the survey, their partner's location/preference was relatively influential in the migration behaviour.

For young couples, when their romantic relationships are strong and stable, regional attractiveness is not only a personal value judgement but also highly related to their partner's needs, demands and preferences. Negotiation and compromising at this point plays an important role between the two individuals.

Sue talked about an example among peers that he knew:

Sue: There is also a couple in our class. The guy is from Wuhan and the girl is from Guangzhou. They are going to get married after graduation, so the woman's Hukou has been moved to Wuhan. Although I don't know what she is going to do in Wuhan.

For students who view their relationship as important, their other demands can be compromised, or in some extreme cases given up, in order to realise the most important demand - staying with their partner. Some young couples plan to get married in their early 20s, and taking the next generation into consideration is, therefore, also a unique factor at this stage. In these cases, the migration decision is also influenced by factors such as education resources. Allen mentioned this phenomenon, that she found from her conversation with a colleague during her internship.

Allen: ...when I was undertaking my internship, there was an colleague who told me that she would try to stay in the big city because she would consider for her next generation, because if you stay in a small city, your child needs to struggle to go big cities, but if you are already in a big city, your child will already be in a big city without having to struggle... My roommates have said this to me many times! Let them receive a better education and better resources, things like that.

However, there were also interviewees who expressed their opinion that a romantic relationship was not influential at all in their migration decision making. Many students tend to think that, during this period in their life, they would like to realise their dream and develop their career first.

Jenny had a boyfriend when she was a freshman in university, who asked her questions that implied that she might change her plan of going abroad for him. But she was consistent in her future plan of going to France for further education, and when she mentioned romantic relationships as a factor in her migration aspirations, she said:

Jenny: No! Never had!! (laughter) Even if I have one his ideas won't influence my location choice! ... I told you that I had a boyfriend when I was a freshman. I said I was going abroad, and then he said, "What will I do if you go abroad?" I thought, "What's that got to do with me?" And then I felt really good about breaking up with him.

This is more related to individual personality traits and family education, which will be discussed in the next chapter.

There are also factors like star chasing and fandom activities, which are usually special in certain life stages. Doing research related to this specific group, these life-course related factors need to be carefully considered and discussed.

6.4 Introduction

The previous section presented the observed factors, patterns, and value- shaping process of graduate migration aspirations. The more factors observed in this research, the more the researcher became interested in the latent drivers of, and barriers to, graduates' values and aspirations. How do we investigate this?

There are some deeper reasons for students' values, their behaviours, and the disparities in their migration aspirations, such as the culture that influences values related to outward moving, gender stereotypes and parental education style. These reasons run throughout the whole process, how values are shaped, and how decisions are made. These reasons will not appear directly from the quantitative data that has been collected, but through in-depth analysis of the qualitative data, it can be seen that certain structural/cultural factors and other latent factors either expand or restrict graduate migration.

In the past few decades, international migration and interregional migration has been discussed as one important dimension of structural change and globalisation. Migration itself has been argued to be extremely relevant to structural changes for societies. To some extent, migration responds to, and acts as a significant indicator of, structural change (Castles, 2010) but it also interacts with the broader environment. The most significant manifestation of this is the greatly increased research related to international migration after big structural changes such as the financial crisis (Manning, 2002), with which the rapid change in migration patterns has been associated.

From a social transition perspective, migration research should also be embedded in a general understanding of contemporary society, and be linked to a broader range of social scientific disciplines (Castles, 2010). Castles (2010) also claimed the importance of social transformation, that it should become a central category in understanding contemporary migration phenomena. Castles suggested that more contemporary migration research needs to be carried out.

Major studies on macro-level economic factors focus on the adjustment process of the labour market, and its causes and consequences, while major studies on migration have put their main concern on visible and obvious factors created by, for example, labour market problems. Little attention has been given to the connection between the macro-level structural changes and micro-level decisions of migrants (Kureková, 2011). In this chapter, the researcher aims at filling that gap, providing an empirical link between interregional migration and macro-level latent factors. (Kureková, 2011) concept of structural factors has been extended in this research, following the idea of Interdisciplinarity and multi-theory in migration research that has been suggested by Castles (2010). The term “latent factors” that is used in this chapter relates to social and cultural factors that potentially affect migration behaviour.

The four basic and necessary elements in international migration research were suggested by Massey in 1998. These four elements can also be applied to interregional migration:

... a treatment of the structural forces that promote emigration from developing countries; a characterisation of the structural forces that attract immigrants into developed countries; a consideration of the motivations, goals and aspirations of the people who respond to these structural forces by becoming international migrants; and a treatment of the social and economic structures that arise to connect areas of out- and in-migration. Any theoretical explanation that embraces just one of these elements will necessarily be incomplete and misleading. . . (Massey et al. 1998: 281).

From the interviews, the researcher found a fair number of reoccurring themes that demonstrate the influence of these latent factors on graduate migration. Unlike the factors that work directly on the migration choice itself, such as wage level and job opportunities, they may act as the underlying reasons for graduates to weigh factors differently in their migration choice. The researcher will introduce two types of latent factors that are the most significant from the interviews, this includes dimensions related to:

1. latent structural factors - social class
2. latent cultural factors - traditional home culture, gender stereotypes and discrimination, and parental influence.

The most important point that needs to be clear is that all the latent factors do not act individually, but interact with each other, and sometimes as both cause and effect.

Firstly, students were asked to express their perspectives on the disparity among graduates' migration choices. Students have clear ideas about some common factors that have been confirmed to have a strong impact on migration choices. However, for social class, opinions were more conflicting among the interviewees.

6.5 Latent structural factors - Social class

6.5.1 Introduction While regional imbalanced development might have a strong direct influence on migration aspirations, social class and other latent factors could also be influencing the range of choices for students at the outset.

As Kenneth explained, social class is relevant to student choices. Basically, there are a lot of ordinary middle-class people... (most of them) are the only child at home, and then parents of the kind of employees in state institutions, this kind of middle class is. (Kenneth)

Kenneth said that most students in universities belong to a similar social class, many from families where they are an only child, and their parents are employees. Kenneth defined these students as middle class. In the interviews, students were asked to talk about topics related to social class, in particular the disparities in migration intentions between students with different family backgrounds. Although interviewees had significantly different opinions, there were some common themes that appeared in the conversations. Six out of the 23 interviewees suggested that Chinese university students have mostly similar family conditions.

Zhuorya: It seems that there are no classmates with excellent family conditions around me... Then, there are no students who are particularly poor in terms of conditions.

Zhuorya thought that the gap between the family conditions of students was relatively small.

Sue: ...China will achieve a well-off society in an all-round way and eliminate poverty in a couple of years. I think that if we put this matter before 1947, there will be a large gap between the rich and the poor, but as far as we are concerned, we all have a lot of money (now). As far as I'm concerned, we won't be in the situation with no money...

Sue thought that China would eliminate poverty in the next few years, suggesting that the gap between rich and poor would become narrower. He also thought that money would not be the most influential factor in graduate migration.

Sue also added that the reason university students are essentially from the same social class is that:

If you talk about people who have no money, if you talk about extreme situations, they may not even get into college. (Sue)

In his opinion, students from a lower social class might not even have the chance to go to university. This might be the reason that some students thought that social class is not very influential on higher education institution graduate migration.

Zhuorya: Personally, I don't think it has much to do with class. After all, it's still within the scope of China. It's not particularly difficult to go where you want to go.

Frank: Then, the ability has a great influence. If you don't have the ability, you must go with the flow. If you have the ability... For example, if you paint well, like a classmate of mine, who paints well, he would like to be a freelancer and outsource painting at home.

Rachel: Yeah, if you have the ability to do well in the college entrance exam, go to a good university and get a good job, you'll be better off on your own. It's about personal ability.

Not only did 6 interviewees, which is considered a significant proportion among 23 total participants, consider social class insignificant in differences between university students, 6 interviewees also emphasised the importance of human capital factors over social class. More specifically, they mentioned that they considered personal ability more important than social capital or location-specific capital.

On the other hand, there were also students who mentioned the significant difference in terms of students' class differences, and the influence of social class, in the interviews. There are two sub-themes that came from the interviews: social class differences in aspirations and expectations, and social class in the capability of realising migration aspirations.

6.5.2 Social class differences in aspirations and expectations

Lulu: Because we are two different classes of people, for example, my class is low, (and during my university course my aspiration is to sleep as much as I could, and pursue a stable life.) I can only pursue sleep. But some people have high social class, which is a very high starting point, so I think this is quite influential.

Lulu claimed that she finally found her life pursuit after four-years of university experience - finding a peaceful, stable and comfortable life. When Lulu talked about students in different social classes, she expressed the idea that social class influences, in her words, 'starting point' by the time of graduation.

Max also pointed out a specific manifestation of social class disparities in the art field:

Max: Well, some people have a strong artistic atmosphere, with generations of painting, parents' support, and a good family or something... it's a good family! Your family can afford to raise you doing nothing but stay at home! They can draw whatever they like at home. If you become famous that's all well and good, but if you don't become famous, it doesn't matter, because it's not necessary for you to earn money for your family.

What Max said here means that, for students from higher class families, it is easier to go for more risky jobs, such as becoming a fine artist. This is because there is no financial pressure to be successful, as their family can support them. Max studied printmaking at HIFA and decided to work in the game industry after graduation. Although he majored in fine art at university, he did not express aspirations to work in the fine art field. He also told the researcher about the difficulty that fine art students face when they graduate.

Max: Artist is an identity, it is not a job. The printmaking department itself, it belongs to fine art. If you want to find (a job that is related to) fine art, you can either take a teacher's qualification certificate, go to the studio, school or become a teacher of art, or... Go...to be an artist; or all sorts of different ways. Like I go to learn the game art⁸ is to find another way.

Max suggested two paths that art students can select when they graduate: becoming a fine artist, or searching for a job related to art. In fine art departments, students tend to search for jobs that are related to art skills that they have gained in university (for instance, game artist or art teacher) rather than becoming freelance fine artists. To become a fine artist has more prerequisites than other jobs:

Max: Few people who engage in pure arts are supposed to make a living first...

The pursuit of becoming a fine artist is quite unrealistic for students who have to set 'make a living' as their primary target. Max said that, while the composition of students in fine art

⁸ Game art design is a subset of game development. It is the process of creating the artistic aspects for video games.

disciplines does contain students from normal families, those who finally engage in the fine art field usually have a better family background.

Max: Pure art students also include some from normal families, after all, the source of students is more complex. However, those who finally go into the pure art field, especially those who go far away, generally, you need a family background.

Max explained that not all students in HIFA have a superior family background, there are students from normal families as well, but that the students who end up staying in the fine art field are the students who have a superior family background. This family background that Max mentioned might not only refer to family financial background, but also social status. Sue talked about the phenomenon that social status is highly related to the value of fine art:

Sue: No way. You must be dreaming. I don't know if you have seen the news. After the former chairman of China Art Association retired, the starting price of his paintings fell from one million yuan to several hundred thousand yuan, and finally to several thousand yuan. Because our national art collection is more related to your status...

Clearly understanding the added value of social status to art in the fine art field, and the barrier that lies between the fine art field and students from normal families, Sue decided to become a university art teacher rather than becoming a fine artist, despite having great talent in his major (watercolour). Among 8 interviewees from HIFA, most students never even mentioned becoming fine artists. Only Sue and Max, whose family financial backgrounds were relatively better than the other 6 interviewees, mentioned the possibility and quickly dismissed it in their interviews. This raises an interesting question: If it is so hard to actually enter the fine art field professionally, why are people so keen to be fine art majors?

Max: People have dreams... You always have to dream before you wake up! But some people wake up earlier.

While students from higher social class families might pursue a higher status career, some students from relatively lower backgrounds might repress their desires and chase something that is more realistic. Zoe talked about a special case of her classmate, whose parents divorced and her mother had to take care of both her and her brother alone. This student valued salary level higher than any other factor in the job searching process and migration choice making.

Zoe: She goes where she thinks her salary is high... Of course, she does not have very high requirements for her own quality of life. She just wants to lighten the burden on her family, I think.

Eutyclus talked about a fellow student from a relatively lower class, who had to work and live sparingly while studying in university. His family was not able to support him to do postgraduate education, and even though he had the ability to pass the Postgraduate Entrance Examination, he chose to search for a higher salary job.

Eutyclus: There is also another student in poor family condition, from Nanchong, Sichuan. He usually does not spend much money, usually still works and studies, so his family has not been able to agree with him to go to graduate school, even if he, I think he has ability to pass the PEE, but he did not choose to do it, and then he directly goes to work. He works in Dongguan for about 8000 a month. Electronics related. He also wants to prepare to work first and then stay in a city like Dongguan.

In this story, even if the student has intentions of pursuing post graduate education, his aspirations might be repressed by the reality of his situation. Zhuorya is another example of repressing personal aspirations due to his family situation. As an art student from a relatively poor family, he not only had never considered the possibility of becoming a fine artist, but had to give up possibilities of the further education abroad he had hoped for, due to his family's financial situation.

Zhuorya: I personally still have a large part of the reason that my family may not be able to continue to provide such a large expense, I chose to give up the idea of going abroad... I wanted to go to the United States before. At that time, I wanted to

prepare my resume and submit it to the ACCD⁹ in the United States. At that time, I wanted to refuel to do this thing. At that time, I realised that the tuition fee was too high to start the project, so I gave up.

ACCD is a famous art institution for video game art. Zhuorya mentioned the high expense of studying abroad, including tuition fees, many times throughout his interview. He was clearly upset when he described having to give up this aspiration himself.

Talking about the main pursuit of lower-class university students, Jenny said:

Jenny: But the poor students they're sure - and now that they're all about to graduate from college, they're going to have a sense of responsibility, and then they're going to put that on the front burner... They don't really care about whether they can achieve their dream or not. They look at the salary of the job, the financial situation and whether they can take care of their family. I think they'll value this more.

She added that, for these students, taking responsibility for themselves and their families might become their primary pursuit when facing graduation. This responsibility is often highly related to wage level and employment opportunities. Migration aspirations are related to this motivation, and whether or not the destination is able to fulfil their dreams is not as important.

Panda: If the family conditions are not so good, then they may go where the salary is higher, because their first priority is to solve this problem - family income. Then coupled with the depression of being short of money since they were young, they maybe would like to go out to make money (laughter). Finding money is the fundamental solution to all the problems.

Panda also had the perspective that students from families with relatively worse conditions would prefer places with higher wage levels. As Panda said in his interview, he thought that the aspirations of many students from lower social classes would be related to the lack of money in their family. To cope with the anxiety that comes from difficulties in their family life, students may have significant job-oriented or wage-oriented migration aspirations after

⁹ Art Center College of Design

graduation. At the end of her interview, Lue, who completed her degree in fashion design but chose to give that career up and study 3D modelling for the game industry instead, imagined what her life would be like if she came from a rich family.

Lue: I just think that if I had money in my family, I would enjoy my life instead! I won't work so hard every day modelling, modelling, staying up late, getting bald (laugh)! I thought if my family had money, I would choose a major in oil painting, try to study for a postgraduate degree, and then something like that, study for a few more years, and then enjoy life a little more, maybe I would not be in such a hurry, and want to find a job in the big city so bad.

To Lue, being a person from a rich family represents an easier life, with extra time to pursue dreams and enjoy life, for example doing fine art majors and further study, instead of pursuing quick return and higher salary after graduation.

6.5.3 The capability of moving

Zoe: If you go to a foreign company or a private company, they must value personal ability more than social relationships. But if I want to enter a national system, or I want to enter a military enterprise, then I need GUANXI. I think it all depends on what you choose in the future and which system I want to enter in the future... our teacher told us that it was very difficult to enter the military enterprises, and it was necessary for us to have a GUANXI at home if we want to find a job related to that, so he suggested that we go to private enterprises. It seems that it's a fact that can't be changed. If you want to go to a good unit that is related to the country, you still need to have GUANXI.

Zoe explained the reason that her teacher suggested working in private enterprises rather than public institutions or state-owned enterprises. In private enterprises, personal ability is more important, but when working within the national system, 'Guanxi' is needed.

'Guanxi' (Chinese: 关系) refers to specific close business relationships in the context of China. The instrumental nature of Guanxi is often viewed from a functional perspective, and can be seen as 'human or organisational capital that helps gain competitive business advantages, improve economic efficiency by reducing transactional cost, or mobilise political support'. (Chen and Chen, 2004, p. 306). Similar to what Zoe mentioned, there are

also students like Jaimee, for whom the social networks of her parents were helpful in their job searching process.

Jaimee: It's my relatives and friends. Then he is familiar with the people in the company over there. Then they and my relatives recommend that I give it a try. Then I went for an interview and passed.

Jaimee found a job at a famous television station in China, but her job searching process was simple and smooth, as her relatives "knocked on the door" for her first.

A similar situation happened with Song, for her internship in a law firm:

Song: My internship was in a law firm that my mum helped me find, so I didn't apply for any myself.

Panda and Eutyclus told stories about people that they knew, who relied highly on the social relationships of their parents in the job searching process. The examples cited were of students with relatively better family backgrounds:

Panda: ...The second generation of rich people I know are basically Wuhan natives. If they are Wuhan natives, they will basically stay in Wuhan... In fact, one of the most important reasons for many people to stay here is that the social relationships are here, jobs that are arranged by their parents...

According to Panda's impression, most of the rich students he knew were originally from Wuhan and decided to stay in Wuhan. As far as Panda knew, the reasons for these stayers choosing to stay were based on the social capital and location specific capital that they had in a specific area.

Eutyclus: Another one is that I said the ability is relatively poor... His family conditions are better, a little better. His father was the headmaster of his high school. He was the headmaster when he was in high school. So, with his 211-bachelor diploma, I think it's possible to get a teacher's qualification certificate or ask his father to arrange a job for him.

The student that Eutyclus mentioned had relatively poor abilities, but a better family condition. Eutyclus suggested that, as this student's father was a headmaster in a high school and he would get a bachelor's degree from a 211 university¹⁰, finding a job would not be too hard despite poor academic performance and personal ability, as his father could arrange a job for him.

As far as Eutyclus was concerned, there will be students who have lesser individual abilities, but are still able to find their way by relying on their parents' social networks.

Students that already have the capital accumulated by their parent's generation may naturally stand on higher steps than others. They might have more choices and more chances for trial-and-error, as Gus described:

Gus: For example, if you don't pass the entrance examination for postgraduate study or something like ours, if the relative economic conditions are not so good then you will (have to) find a job... Then if your family background is OK, and then the parents may say, don't hurry to look for a job, take an exam again or take your time to find a better job.

According to Gus's interpretation, in the situation where students fail to pass the PEE exam, students from families with better conditions will have more chances to try again or take more time to find a better job, while students from families with poorer conditions usually find a job directly on their first try.

Panda suggested that there is also a geographical scope to the influence of parents' social networks on graduates. Outside of that scope, the parental social capital might not be as influential.

¹⁰ Project 211 is a project of National Key Universities and Colleges, initiated in 1995 by the Ministry of Education of the People's Republic of China, with the intent of raising the research standards of high-level universities and cultivating strategies for socio-economic development.

Panda: In fact, if my parents arrange a job for me using their social relations, it's more possible to be in Wuhan, because there are social relationships in Wuhan. But if you go to other places, this factor may be less (influential).

Panda is originally from Wuhan and his parents have potentially useful social networks there.

However, this factor was less influential when he tried to find a job in Netease in Hangzhou¹¹.

Panda added that the sphere of parental social capital influence is also highly related to their social class (especially occupation and political status here). He continued with an example of a girl that he met during an internship.

Panda: (the factor may be less when you are distant with parents' social networks)... Unless you're the kind of person who runs the country... National leaders... For example, when I was interning at the beginning, I had a senpai¹² from Tsinghua University... She studied in the director department and came to Netease (which is one of the most famous Internet technology companies in China) to intern as a game concept illustrator. Then, what kind of national leader is her father again? She told us very lightly, as if her father was a cement factory worker. So, her internship instructor was the art director himself...very impressive.

Panda was saying that it is very unusual for an intern to be instructed by someone as high up as the art director of a company like Netease, but that this was possible for his senpai¹¹ due to her own family's high social status.

In Panda's concept, the sphere of the social network of one's parents is one important aspect that restricts outward migration or facilitates homeward migration intentions. He used the children of rich people in Wuhan usually staying in Wuhan as an example:

Panda: In fact, one of the most important reasons for many people to stay here is that the social relationships are here, jobs that are arranged by their parents, these

¹¹ A semi-first tier city in Zhejiang, Eastern Coastal Area

¹² senpai is an upperclassman who mentors an underclassman, or kohai. This term is used most often in English in reference to anime and manga and originates from Japanese 先輩, "earlier colleague". LLC, H. P. 2020. *Collins Dictionary* [Online]. HarperCollins Publishers LLC. Available: <https://www.collinsdictionary.com/submission/20119/senpai> [Accessed].

things. Basically, all the Wuhan people I know who have better family conditions stay in Wuhan.

As well as capabilities influenced by social class, Jenny also suggested that, in her opinion, she had found that there might be a difference in commonly accepted behaviour in each class or smaller communities within classes. For example, the girl that is mentioned below came from a rich family where both of her parents worked in the economic field, and going abroad was both common sense and a necessary process for her.

Jenny: I feel like many students from good families have gone abroad. I know a girl in Beijing... She belongs to the economic field of her family members, her parents are both from investment companies, and she is also learning accounting, which means that she can find a good job after graduation, but she will choose to go abroad, and she must be in a reliable kind of school. I asked her why, and she said, "Because people in our community need to have that background." She thinks everyone around her has gone abroad. She has to go abroad to be at the same level as everyone else around her. Then there are those who have worked for two or three years, and although the job is good enough, they'll still choose to go abroad. There must be an experience, they think they have to broaden their horizons, and then there must be an overseas experience - they think it is necessary.

Jenny talks about a girl who's family works in the economic field. In this field, people need to have an overseas study background to broaden their horizons, even if they would be able to find a decent job without it. Jenny thought that this was part of the reason why this girl chose to go abroad for further education.

This idea that going abroad is considered necessary in some communities within higher classes was also mentioned by Tom and Ariel:

Tom: I feel that students from richer families tend to go abroad... Well, it seems like going abroad is often not their own will, sometimes their family arranged that for them...

Tom stated that some of the students from richer families have to go abroad, following their parents' arrangements, without other choices.

Ariel: Ah, there is a richer classmate, maybe he was being forced - it was not very good at the time, I mean his grades, then he went to a class of Sino-foreign cooperative educational institution, and then maybe because he doesn't need to consider many other factors, his family can also afford his academic costs, he doesn't need to work, his family provide him money to support himself going for further education. He went abroad later.

In Ariel's story, this student from a richer family also went abroad as arranged by his parents, regardless of his relatively poor academic performance at university.

A similar situation appeared in middle class families. Eutyclus and Ada pointed out that middle class students often go abroad if their families can afford it, or take the Postgraduate Entrance Examination if not.

Eutyclus: My family background is normal. My parents are civil servants, and then all parents can either support the down payment of a house, or the down payment is used to study abroad... So I chose to go abroad.

For Eutyclus, his family background is normal, according to his interpretation, and can support him with two routes: either a down payment for a house or using the same amount of money to support him to study abroad. Eutyclus thought that going abroad and accumulating human capital was more important than the down payment on a house.

For Ada:

Ada: Because in our dormitory our family backgrounds are particularly good, the only way is to take the postgraduate entrance exam, we cannot take another road.

In Ada's dormitory, the four students were not from very wealthy families, and the only way to compete in the labour market was by taking the PEE. For her, there was no other way of realising upward social mobility.

6.6 Cultural factors

Apart from the social class elements that influence the range of choices students can make in the first place, there are also cultural aspects that have an important role in students' values towards the different aspects that shaped their final migration decision, according to the interpretations of the interviewees. In this section, these latent cultural factors will be introduced through the stories told by the interviewees. These themes include traditional family culture, gender stereotypes and discrimination, and parental influence.

6.6.1 Close to '家' (Home) - strong family attachment and the traditional view behind it

Although the wage level (in my hometown) may not be as high as in Guangdong (a famously developed province in Eastern China), but... I think going to Guangdong is too far away from home... (Ariel)

Unlike White's choice in the last section, in a choice between places with higher wage levels and places close to home, Ariel chose the latter. Although, rationally, there could be objectively better choices, with higher wage levels and superior amenities, emotional connections between 'home' and individuals are sometimes stronger than we expect.

Table 62. Whether destination is the place the student used to live with their family

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	406	42.4	43.7	43.7
	No	523	54.6	56.3	100.0
	Total	929	97.1	100.0	
Missing	System	28	2.9		

Total	957	100.0
-------	-----	-------

In both the survey and interviews in this research, the trend of choosing destinations relatively close to home, or going back home as return migrants, is obvious, and consistent with existing studies.

In the survey (see table 62) 42.4% of the respondents chose places where they used to live with their family before entering university as their first destination after graduation. Meanwhile, the answers related to migration motivations were consistent with the trend of going home. 549 students (57.4%) selected ‘social relationships’, which refers to family, friendship and other aspects that influence the familiarity of an individual with a place, as one of the four most important reasons for their migration intentions.

In the interviews, this return trend of graduates was more obvious. The classic definition of return migrants is defined by the geographical boundaries of regions, and usually refers to migrants who return to their original domicile. For example, in the USA, the type of migrant is defined by states. Migration research about China also simply defines migrants in terms of the location of their destinations, by provinces and cities.

But in the interviews, the researcher found that the trend of migrating to places close enough to one’s hometown was also common. From the total of 23 interviewees, 18 showed the intention of migrating to places ‘close to home’, or had already decided to move somewhere near their hometown. The specific choices varied between individuals, including choosing a province next to their hometown, choosing the capital city of the same province as their home town, and also of course, returning to their home town.

In these cases, the motivations for action (moving somewhere near home) are way more valuable than the consequences (where exactly they intend to move). Therefore, in this chapter, the researcher broadened the definition of ‘return migration’, and alternatively uses the phrase ‘homeward migration’, since the graduates that tend to migrate towards home but do not return home directly should also be considered. This section is highly related to the cultural factors behind these homeward migration motives.

At this stage, the questions are more centred around these kinds of things: Why homeward? What role does home play in their migration aspirations? What does home represent in Chinese culture?

‘...it’s about my own responsibilities or feelings towards my parents’

In the interviews, this highly emotional connection between hometown and student was more obviously presented. Sometimes, it manifested as a strong sense of responsibility.

Allen, a TESOL student, described the situation where she chose to become a pre-service teacher, despite having multiple alternative choices when applying for university. She said:

Allen: Actually, at that time, I was the one who chose to be a pre-service teacher when I had lots of other options. My scores in the college entrance examination were actually good enough for those better options. I don’t have to be a pre-service teacher, you know. But I feel that I am afraid that after I have seen the bigger world, I might not be willing to go back home (laughs). So, I restricted myself and became a pre-service teacher. I still think everyone should go back and do something for your hometown.

Objectively, Allen gave up potential gain through outward migration when she decided to contribute to her hometown, but her sense of responsibility did not give her many other options. In more frequent cases, this sense of responsibility is tightly bound to home, which refers to family, or more specifically, parents.

Jamiee: It's not about my parents' wishes, it's about my own responsibilities or feelings towards my parents. In fact, if you say you want to go, and your parents don't support you, it's nothing, you can still go. That is, sometimes I still feel like I can't cut down the emotional connection with them.

Jamiee was a female student majoring in Media and Advertising in WUT. She moved from a small village in Hebei to a town, and came to study in Wuhan. She experienced the contrast between metropolitan and small-town life and had always been dreaming about living in metropolitan cities such as Beijing and Shanghai. However, the main reason that she chose Shijiazhuang (her hometown) over other places was her emotional connection with her parents, the strong sense of responsibility to take care of her parents. This was the most common reason for homeward migration found in the interviews.

Ariel: ...I have another classmate who decided to go to Chengdu. He is also from Luoyang. He went to Chengdu, then I asked him: "**What about your parents?**" He said: "I'll settle down in Chengdu and buy a house."

To Ariel, the idea of moving from Luoyang to Chengdu without thinking about her parents was incomprehensible. While Ariel was describing the situation when she first heard about her classmate's idea, her facial expression and voice expressed how surprised she was. She was even more surprised by the 'there's always a way' attitude. This individualistic thinking was totally unexpected to her.

On the other hand, this is also a two-way responsibility. Parents are also taking on the responsibility of taking good care of their children. By taking on the responsibility of taking care of each other, family members are bound tightly together.

The same attitudes show in Jamiee's statement:

Jamiee: Then I thought if I went to Beijing again, she (my mother) did say that she would be worried, she would miss me or something, and then I didn't go.

That Jaimee chose to give up a good job opportunity in Beijing, and move back to her hometown of Shijiazhuang, was not only because of the natural filial duty, but also from the feeling that her parents cared for her. But interestingly, the majority of the students held the opinion that parents worry more about girls than boys. This disparity between genders is not a coincidence.

'Go out if you can, go home if you can't'

Max: Well... Let's just say that. The ultimate goal is to be able to create games. The second important goal is to be able to work in a company. The last choice will be to go back home and live off my parents... You really can't help it. You have to go home at that point if you have no other choices!

For Max, who decided to move back to Guangzhou (the capital city of Guangdong Province, he used to live in Dongguan city in Guangdong Province), the most important reason was his familiarity with the environment and lifestyle there. However, talking about the real situation, he said if he could not get an ideal job in Guangzhou, there would always be the option of moving back home. Similar opinions also appeared from several other students.

For example, Rachel's mother encouraged her to move outwards, saying her family was a powerful backing and would always support her. Even if she suffered setbacks, she could always go back home.

Rachel: My mum said it would be nice for me to live at home and get a job around here if I couldn't find a good job in other places. She means 'go out if you can, go home if you can't'.

Not all students are lucky enough to be able to go through trial and error. Students that can do this share a similarity, that their families have enough capital to support their children.

Jenny: But students from good families certainly do not need to take responsibility for their own family, the only thing they need to care about is meeting their wishes.

Jenny suggested that students from good families do not necessarily need to take family responsibility.

Sam: I have some examples about family conditions. I have a friend. He studied in the U.S. in college, and then he might go to Australia to study after he came back. I asked him, where are you going to work in the future? He said he didn't know. Just wait for the arrangement at home. He has better family conditions.

Sam also gave an example about a friend who came from a better family. He said that, rather than worrying about their family situation or taking care of their family, they tend to rely on their family to help them instead.

Eutyclus: There are six people in my dormitory. Two have better family conditions...it gives me the feeling that they have no pressure, and they often say something like, 'It's not a big deal, I can still go home.' The one from Tianjin has two flats. His parents live one, the other one is prepared for him to get married. He can just randomly find a job for 5000 or 6000 yuan per month. He doesn't have to pay back the mortgage. He has no mortgage pressure. He lives happily.

Eutyclus talked about roommates who had better family conditions, saying that they considered home to be a safe harbour, and that no matter what happened, they would have family support and a place to return to. One of them got support from their family to buy properties - male students usually have the pressure of buying houses and cars when getting married.

For the students mentioned above who have more choices, their reasons for moving homewards usually tend to be searching for familiarity and safety. They will always have the chance to move outwards and take more risky and challenging opportunities.

The sense of responsibility that has been mentioned above manifests more strongly in students who do not have this superior family background.

6.6.2 'Girls are more inclined to go home' - gender stereotypes and discrimination

Ariel: Parents are always worried about girls going somewhere alone...but they may also tend to think that, I should stay close to home, don't go too far, they might be worried I might not come back if I run too far away from home.

Allen: Girls are more inclined to go home, then... um... I think it might be that their parents want them to stay with them.

Compared to male students, Ariel and Allen thought that female students are more inclined to go home. On the one hand, Allen suggested that parents would want their female children to stay with them, on the other hand, Ariel suggested that parents might be worried about female students going somewhere alone.

The same finding can be found from the matrix analysis of the interviews. Through the matrix of the code 'take care of parents or family', 'heavy family value' and gender, among 11 females in the interviews, 5 of them talked about responsibility towards family, or stated their reasons for their migration intention were related to this responsibility. Only 1 male student mentioned this aspect.

Zoe: ...The other type of students are from traditional families, and if they are a boy, they might be going home. For example, my classmate from Hainan went back to Hainan to raise crabs. It's amazing... He has two elder sisters, and then he is the third. He is the only son...

In Zoe's words, according to traditional family values, an only son has the responsibility of inheriting the family business. Her classmate, who was the only son in his family, went back to raise crabs in Hainan, which is an island province near the south coast of the Chinese mainland. Only children is also a sub-theme that was mentioned by the interviewees.

Jenny: First of all, I'm the only child in my family. They don't let me go too far.

Ada: ...Because after all, I'm an only child. I can't go too far.

Students like Jenny and Ada, who belong to only-child families, can have more pressure than other generations who can share family responsibilities with their siblings.

Allen: There is a saying between us that “one guy is equal to one country”.

Allen described gender disparities between male and female students in the School of Education using a quote popular among students in the School of Education.

To explain this sentence, Allen told the researcher her observations. She stated that males have more opportunities to make choices and have more alternatives than females:

Allen: Girls are more inclined to go home, then... um... I think it might be that their parents want them to stay with them, guys... they like to go other places as I observed... They are very open with their employment. They can try different cities, and it doesn't matter if it defaults the agreement...

According to Allen's impression, amongst students who major in education and intend to become teachers after graduation, females usually find it more competitive and difficult to find a job than male students. According to Allen, gender is an important theme.

‘...She is a girl! I think a boy may be better...’ - Gender stereotypes

Kenneth: ...She is a girl! I think a boy may be better. If you are a girl, your family is from Chengdu, university in Wuhan, and you work in Guangzhou, I think you must have no solution but choose this.

Kenneth expressed his worries about a girl in his class who decided to move towards a strange city where she had no friends or relatives. Many people have similar opinions about female graduates moving outward or taking risks by themselves.

Allen described the gender distribution in choosing universities and disciplines:

Allen: ...Because boys don't want to apply to CCNU. I am from Wuhan myself, and my class is an experimental class, which is the second-best class. Then in the year of our class, there were more than 30 people who reached the standard of going

to CCNU and WUT. I'm the only one in CCNU right now. The other 30 people all went to WUT...

Allen's class in high school was an experimental class, meaning that it contained general science students who performed better than others. These classes usually have a high percentage of male students. After the CEE, although there were over 30 students who reached the score requirement for CCNU and WUT, most of them chose to enter WUT rather than CCNU. In her eyes, boys do not want to apply for CCNU.

Panda discussed topics related to gender imbalance in universities as well, from the perspective of different social expectations of males and females:

Panda: And like many boys who may have been educated since childhood, "a good man is ambitious and goes many places", and then he has to go somewhere further to have a look, so many of them are not gonna stay in Hubei. I feel that most of the people who stay in Hubei are just... more girls.

Panda told the researcher that the education people have received since childhood is different between genders, that boys should be more ambitious and risk taking, while girls should be more reserved. This type of stereotype is related to their migration choices after graduation, as Panda said, most of the people who stay in Hubei are female students.

Also, when talking about why there are so few male students aiming to become teachers, Allen gave a perspective that relates to unfair gender obligations and roles in Chinese society.

She said:

Allen: Because... teachers also need a balance between genders...first of all, this society actually has very high requirements and standards for boys. You need to have a car and a house (flat), but if you are a teacher, it's hard to achieve all these, so if a guy wants to pursue those, um... may not be a teacher...that is...teacher won't be the first choice, or the ideal career. Therefore, I feel that the boy who did not go to school of education was also a manifestation of males being oppressed from the beginning.

What Allen meant was that this type of stereotype expects males to have financial and material capital such as cars and houses, but that being a teacher is not an easy way for males to achieve these targets (since the income of teachers is usually not very high). This stereotype gives male students pressure as well.

Similarly, Rachel pointed out the unfair gender obligations and roles due to gender stereotypes in romantic relationships.

Rachel: But girls don't have to buy a flat! They just want to hang out there for a few years.

From these interpretations, females are expected to be taken care of (mostly financially), to have children and get married earlier. Males are expected to buy flats and cars, and pay the bride price if they would like to get married.

'It's more convenient for boys to get jobs.' - Gender discrimination

Kenneth, who had already accepted an offer from a law firm, directly told the researcher the harsh reality that female students are facing in the employment of law firms.

Kenneth: When I was interviewed by a law firm, my master also mentioned to me that, anyway, a problem for girls is to have children. Basically, all the companies don't really like girls. There's no way. It's the same in the whole industry.

He pointed out that his intern instructor told him that discrimination against females in the law industry is common, and sometimes it is because females may have children, which brings various aspects that a company would consider negatively.

Kenneth also added that he thought being a lawyer is not suitable or convenient for girls in many ways, which makes female students from the school of law tend to take exams to be civil servants rather than becoming lawyers. A similar situation was mentioned in other liberal arts majors, such as the school of education.

Ada: Our counsellor told us, if we were asked "Do you have a boyfriend?" in the job interview what should we answer... Because there is such discrimination, because our counsellors themselves have encountered such discrimination when looking for a job.

Ada, as a female student in the School of Education, was directly given advice by a counsellor who experienced gender discrimination while she was searching for a job. This included how to cope with issues when searching for jobs and doing job interviews, for example, how to answer questions that have implied meanings, such as whether you have a partner or not.

Ada gave more detail about what kind of gender discrimination her class counsellor experienced.

Ada: That's... She is a counsellor for our 2016 entry students, and then when she was trying to find a job as a counsellor in the University of Agriculture, she was told that they only want guys. But her working ability is very strong, and then she came here to CCNU. She would have gone to the University of Agriculture.

The counsellor could have gone to the University of Agriculture as she wished, however, since the university only wanted male counsellors, she ended up going to CCNU.

The researcher then asked Ada why that happened, since it is acknowledged that in China, gender discrimination is forbidden by law.

Ada: There are rules, but because Huanong (Huazhong University of Agriculture) reported, they said directly: 'There are too many female counsellors in our university, so we do it in order to ensure the balance between men and women.' Then the country will have nothing to do, and there will be no follow-up to this matter. Maybe the girls are pregnant or something like that will take a lot of time.

Ada explained that, on the one hand, if the university wants gender to be balanced and there are too many female counsellors, their response seems to be reasonable. However, although gender discrimination is forbidden, there will be no strict follow-up on single cases. Similar

to Kenneth, Ada also thinks that having children is the reason for females being in a weaker position in employment.

Ada: It's more convenient for boys to get jobs. That is, there are only four boys in our major.

Ada described the relationship between imbalanced gender in universities and the gender disparities in the education industry, from her observations in the School of Education. She told the researcher that, while female students struggled to find jobs as teachers, a male student who's GPA was lower than most of the girls was easily admitted as a grade director at a school in Shenzhen.

Ada: Because he's a boy... the teacher industry needs more boys.

At the same time, there were also interviewees who had different opinions, and thought that the gender disparity in migration is small, or getting smaller.

Eutyclus: I don't think there are too many differences among people at present... It depends on whose salary is higher.

Eutyclus pointed out that as far as he is concerned, salary is the decisive factor, and way more influential than gender.

White: No, as far as I know there is no gender difference among people I know... The gender difference is not very obvious, most of them think job opportunities are more important, and won't have a strong connection emotionally with home.

White says that job opportunities are more important than other factors, including gender. He also suggests people will not have a strong emotional connection with home, which implies that the homeward migration might not be closely related to gender.

Lue: ...The game-making field... feels like gender disparities didn't really matter to us...

However, Lue and students with similar opinions to him tended to work in emerging industries. In these new areas, where ability matters more than other aspects, the gender disparity may be smaller.

6.7 Parental Influence

There is a very interesting phenomenon that was found in the interviews. Although homeward migration was common among interviewees, students sometimes chose not to move back to their home town, or were not willing to live with their parents. As mentioned in the previous chapter, parental influence strongly affects significant choices in students' lives. This includes choice of Higher Education Institutions, and after graduation, migration destination choices. However, compared to the choices that were made when entering university, parental influence has less weight in migration destination choice and students can take more initiative, depending on their family education style. China is in an era with two contrasting ideological trends, one traditional and one that is emerging with the rapid opening-up of society and the developing economy. Family education, the way that parents influence their children's migration intentions, and the way that students respond to their parents' advice, suggestions or commands has changed in this environment.

In the interview, 3 of 23 students admitted that they never argue against their parents, including when it comes to migration choices. 6 students showed a strong desire to make choices of their own. There is a balance between traditional "Xiao" culture, family values, and individualism which puts personal development prospects and desires in a more important position over external restrictions.

Some students whose parents are relatively powerful have the intention to escape from parental control. Obviously, the reasons for choosing destinations distant from family are

not as simple as escaping from one's parents, but this is definitely one of the important factors. Students who have developed autonomy while receiving new experiences in university will naturally reflect this in their response to parental control.

The most extreme case in this research was Sue, who had strong conflicts with his parents, as mentioned in the previous chapter. After finding out what his parents had done to him, and feeling that this showed that they had never respected his self-awareness, Sue decided to act against his parents, especially his mother. He described the situation like this:

Sue: I don't want to keep long hair because I want to keep it, mainly because I want to act against my mother... Yes, we haven't talked for two or three years. I don't want to talk to her. I think it's too much...

Sue's mother was very against him having long hair, and since he had decided to act against his parents, he grew his hair long. By the time the interview happened, Sue had a pony tail and had not talked to his mother for a few years.

When talking about future plans and about where to live after graduation, Sue was very persistent, stating the importance of being independent emotionally, and more importantly economically, several times.

Sue: Yeah... And then there's plan C. To go abroad on one's own... I think there are still a lot of people like me who are still dependent on their families and have not yet achieved economic independence... I think independence is a very important thing... There is a kind of feeling of 'It makes one feel in the wrong to hanker after a petty advantage.' It feels like living dependently is not very comfortable. I just want to get out of this environment.

To Sue, being in a family environment where children must obey their parents, and being considered a dependent and a belonging, rather than an independent individual who has initiative, is not acceptable. After a long fight against parental control, Sue finally decided to escape. This case might be extreme, but actually reflects the deep conflicts between traditional parents and their more independent children. For graduates such as Max and

Zhuorya, this conflict might not be as obvious, but a deeper desire to make their own decisions is reflected in their choice to live somewhere distant from their families.

Max: My intention is that the problem will not be too big if my destination and home town is within a whole province. Including Guangzhou... If it's near Pearl River Delta, the problem will not be too big.

Max thinks that living in the same province as his parents would be better, and since he is originally from Guangdong, he would choose somewhere near the Pearl River Delta - somewhere close to his home town that also has good development.

Zhuorya: One is that I am from Guangxi. Guangdong is also a province close to Guangxi. It's convenient to go home.

Zhuorya also tended to move towards home, but different from Max, he chose the province next to his home town instead.

Other students chose another way to respond to their parents.

Ada: ...I don't usually say I'm against my parents. Because I am in Wuhan, I think as long as I graduate, I should be able to find a job that I am satisfied with.

Ada did not usually defy her parents, so she decided to move back to Wuhan as her parents wanted, hoping that she could find a job that she was satisfied with.

Similar to Ada, these students chose to obey their parents, and make decisions as their parents wished, but some still secretly wanted to make their own decisions. This kind of student might choose to fulfil their parents' wishes at first, even if they do not want to, hoping that a good chance to put their autonomous thoughts into action will come in the future.

Frank is an example of this. He showed frustration when talking about the contrast in opinion between him and his parents about his plans for life after graduation:

Frank: Well, he said. In his words, I hope you'll be a teacher there (Xianning). Then I got my teacher's certificate. But this is not what I want to do. But in order to deal with him, I got the teacher's qualification certificate anyway...High school. High school art. Well, it's mainly my father's request. I'll take the exam. But I don't want to do it.

After the divorce of his parents, a seesaw battle began with Frank's graduation from HIFA. His father stays in Xianning (a city in Hubei province and Frank's home town), and wanted Frank to live there after graduation, while his mother wanted him to live with her in Guangdong. In order to fulfil his parents' wishes, Frank got a certification which he was not really interested in, but then decided to stay at a distance from his parents, neither staying in Xianning with his father, nor moving to Guangdong with his mother, but living in Wuhan (the capital city of Hubei) instead. In terms of family education style, it is quite clear from some of the interviews that parental values are gradually becoming advice and suggestions, rather than decisive factors, in the new era. Family education is more open-minded, with parents encouraging students to take risks when they are still young, to challenge themselves and live on their own. More and more parents are starting to realise the importance of giving away power to their children.

Lue: ...My mother does not, my mother wants me to go to the big city to develop... She hopes I won't become a "mortgage slave"... You don't have to have a house, then you can buy a good car, and then you can rent a flat... My mum was really open-minded, and then my mum said, if you feel you want to retire, it is, our family also has a house, your boyfriend's family must also have a house. It is ok to want to look for a city to settle down. Enjoy life and work in the big city when you still have time.

Lue's mother made it clear that she does not want her daughter to become a 'mortgage slave', which means having a large mortgage when buying a house and being under too much stress about paying it back. Even though Lue decided to work somewhere with high housing prices, her mother suggested it was alright for her and her boyfriend to rent a flat instead of buying a house. The main idea was to encourage Lue to enjoy life.

As Lue said in the interview, her family education was relatively fair and respectful, and her parents taught her to make decisions for herself. The cultural limitations that usually create barriers for individual migration, such as gender, will have less influence on her.

Lue: As for me, my parents never taught me this idea since childhood, and then they let me decide everything by myself. Therefore, I think the influence of gender is relatively small, and it mainly depends on myself and how I plan for my future.

There were other parents like Lue's mother, who encouraged their children to move out. For example, Zhuorya's parents (mentioned in the last chapter) had always encouraged him to search for a better life in a more developed region. As far as can be seen from the interviews, for some students, the influence of their parents' opinions is less strong than before, and their parents are becoming more open-minded about their migration choices.

6.8 Summary

This chapter has discussed how values are shaped from a chronological perspective and taken an in-depth look at the relationship between a student's life experiences and their migration aspirations. It is quite clear that life experience factors have a strong direct or indirect influence on migration aspirations after graduation.

By separating the value shaping process into three stages (before university, university experience, facing graduation), the researcher found some interesting evidence from the interviews.

The choice of university location is usually based on the restrictions of objective factors, such as College Entrance Examination scores and parental instructions, and by the time students have passed the CEE, they face the first great decision and major turning point in their lives. With the uncertainty about their future, and in China's case, a short period to

make their choice and lack of adequate information about potential destinations, this decision is usually education oriented. University quality and ranking are considered as life-course related factors, and this is consistent with the regional attractiveness theoretical framework, which is related to certain life phases and is not unchanging.

As time passes, however, the values of students are gradually changing and being constructed. During their four years of university life, students not only have the chance to experience new things and construct their attitudes towards possible choices of ideal locations for long-term living in the future, but also have the chance to re-examine the choices they have already made. Here, the most important finding in this research is about the relationship between new experiences and the information about different regions an individual has received, and their migration aspirations. Attitudes towards various regions are significantly different according to the different levels of adequacy and accuracy of information an individual receives about a region.

When students are facing graduation, the pyramid of regional attractiveness is almost shaped. The researcher categorised the students into three different groups based on the initiative in their migration choice, while analysing their migration destination choices based on Niedomysl's regional attractiveness theoretical framework. The regional attractiveness pyramid was reflected in the process of migration choices and destination selection of the majority of the interviewees, especially the group of interviewees who had more options than the other groups.

Moreover, the researcher also found some special life-course related factors that influence individual migration choices, such as romantic relationships, fandom, etc. This finding is also consistent with Niedomysl's (2010) theoretical framework. Then this chapter discovered some latent reasons behind these student's choices.

Economic geography: Unbalanced development between regions.

Through the interviews, the researcher found that the unbalanced development between regions as a theme was repeated by different interviewees. This theme was especially reflected in the interviewees' intended destinations after graduation, was geographically concentrated, and the agglomeration was highly related to their majors. Also, there were interviewees who suggested that the concentration is more obvious in students who intend to search for jobs in emerging industries such as the game industry, or liberal arts students who are less bound to industrial distributions within China. There were also students who suggested the perspective that it has become a trend for students to move towards big cities after graduation.

Social class

Interviewees' interpretations also showed the significant influence of social class factors on their migration aspirations (or other's migration aspirations). First is the limitation on migration aspirations. There were interviewees who suggested that the pursuits of students from different family backgrounds might be different. Students from higher classes might have a higher probability of risk taking, where students from lower classes might tend to work in a more reserved field, take responsibility for their family, and have wage-oriented migration aspirations. Second is the limitations on the obvious factors that limit migration capabilities and probabilities of students. Interviewees suggested that this influence is related to social networks such as Guanxi, which is one of the most helpful elements in the job searching process, and this social capital usually refers to one's parents' Guanxi. In the interviews, there were also students who connected the social networks of parents with their social class. With the support of their parents, students who have higher social capital have an easier time finding an ideal job. The network range is related to the geographical radiation range (usually radiating from the original domicile of the family) and their parents social

stratum (political stratum is also important). Apart from financial support for a student's migration aspirations, the necessity of getting through the gateway of communities within a certain class also relies on parental social class. Students from higher classes who have parental support might find it easier to take higher risk choices (outward migration, doing unstable jobs, etc.), and easier to enter certain communities within their class. Students from lower classes might find it difficult to rely on others, might believe in personal ability, try to increase their human capital by accepting higher education, and work in emerging fields that are more highly related to personal ability than social relations.

Education system

Considering things that directly influence a student's life route, the professional counterpart system is the most significant theme that was mentioned by interviewees (along with the CEE system, which was discussed in the last chapter). Interviewees suggested that, with the counterpart system, students can only enter a certain field if they seek jobs that match their majors. At the same time, the counterpart system acts together with industrial distributions (see the Unbalanced development between regions section) and orients a student's destination choices. Also, according to some interviewees, this system not only works in the employment market, but also works in the enrolment of university majors, which limits a student's potential migration choices after graduating from university. There were also opinions that this effect of the professional counterpart system happens more frequently to students who intend to work in public institutions than students who intend to work in private enterprises.

Gender disparity, stereotypes, and discrimination

In the interviews, the influence of gender disparities on migration aspirations was reflected as a theme through participant interpretations. The most important finding of this dimension

is the different roles that different genders play in society. It manifests in the significant gender imbalance in different majors in universities (or from high school), where the majority of general science majors are male, and the majority of liberal arts and fine art majors are female. Also, there were interviewees who suggested that the different roles that different genders play gives pressure to both male and female graduates in different ways. Female students are supposed to naturally take on the responsibility of family (family of origin and new family in the future), and male students are supposed to make a living for their family and take care of their partner (mostly financially). This might relate to the different weighting of factors between male and female graduates in the migration choices of whether to migrate or not, and where to set as destinations. Moreover, two interviewees specifically pointed out that gender discrimination in the labour market still takes place through a different manifestation than before.

Cultural factors

Cultural factors were also a theme from the interviews, reflected in two main aspects. First is the homeward migration tendency. The driver of interviewees' homeward migration is complicated, including firstly, the strong emotional connection with home. This connection manifests as a strong sense of responsibility towards one's home town and family, which is deeply rooted in Chinese culture. This type of responsibility is also a two-way responsibility, where on one hand, students tend to take the responsibility of supporting and taking care of their family, but on the other hand, parents tend to take care of their children, even if their children are adults. This type of family-based culture binds family members tightly throughout their lives. However, we found significant gender disparities in taking responsibility for family through the interviews, in terms of how interviewees value family and their tendency of homeward migration. Disparities between single child families and

multiple child families were also found amongst interviewees. According to their observations and interpretations, single children tend to take this family responsibility.

Apart from the responsibility that drives homeward migration, home also acts as a safe harbour for some interviewees, providing students with a safe and secure environment. These types of reasons are found within groups of students whose families are able to provide them with acceptable living conditions, capital to support taking the risk of not working immediately after graduation, or other career or employment support.

There were also interviewees who decided to homeward migrate but stay at a distance from strong controlling parents. From their perspective, while they would like to escape from strong parents and realise their autonomy, they do not want to discard traditional virtues and therefore choose either to stay close to home but stay at a distance from their parents, or fulfil their parents' wishes first and then seek chances to move away and live their own lives. Generally speaking, the balance between traditional virtues and personal development is the main issue that lies underneath this phenomenon. More and more students have started to consider their parent's instructions as references, suggestions and advice rather than commands, while parents have started to become more open-minded and encourage their children's own choices, even including migrating away from home.

6.9 Discussion

The most significant discussion in this chapter is how important life experiences can influence migrants' values and finally influence their migration aspirations. The obvious relationship between observed factors has been universally acknowledged in the academic field, but the deeper meaning of the aspirations and choices has received much less attention. Regional political debates focus more on how to attract and retain skilled workers,

(Niedomysl et al., 2010) and the main discussion is restricted to the decision and migration behaviour itself at a point in time (or a short time period), rather than investigating longitudinal reasons or causality. The importance of the findings in this chapter lies in demonstrating how students' life experiences in the earlier stages, even before entering universities, also have a strong influence on their final choice of locations when they are facing graduation and the labour market. To put it more clearly, their life experiences have a strong influence on the way their decisions are made.

Although this finding is consistent with the pyramid of regional attractiveness, it also demonstrates a discrepancy in the theoretical framework. Including places that are contained in the 'needs', 'demands' and 'preferences' layers, the places that are not considered as choices are arguably also essential, since the reason that a place that will not be chosen is not as simple as being unable to provide potential survival, but the number of choices are also influenced by information about the region. In addition to the regions that have certain factors that make graduates definitely avoid them, there is a 'grey zone' lying under the bottom of the pyramid. This 'grey zone' includes regions about which students do not really have enough information, and have not considered going there or not. It has been suggested by existing research that when high school graduates choose their university location, they are not usually driven by economic factors (such as local unemployment rates or wage levels) because 'they put more weight on other factors such as educational opportunities and the quality of life.' (Liu et al., 2017). Other than the restrictions that were mentioned in the first section of this chapter, location choice is more flexible for high school graduates than for university graduates. More students tend to enrol in universities out of their original region of domicile. This not only increases their migration experience, but also gives students a chance to have a more intuitive feeling about different places by going there. (Liu et al., 2017)The construction of graduate migration decisions is often based on the correctness and adequacy of information a student receives before the decisions are made.

This information, which influences a student's attitude towards a certain area or occupation, is usually gained from new experiences during university. In other words, the decision making process begins subconsciously during these activities.

Also, as mentioned in this chapter, the context of China stands out from the basic trends of migration research in the world. The process of value shaping reflects some structural factors, which restrict or facilitate graduate migration aspirations on a broader scale. For example, there is the unbalanced development between rural and urban areas, Western China and Eastern China, which generates some of the motivation for the Eastern oriented migration from earlier on in graduates' lives. This concept of seeking a better life in a better place is deeply rooted throughout some students' life experiences, ranging from family education, to their individual choices at different stages. In these students, graduate migration behaviour results in both spatial and social mobility (or the intention of social mobility). There are cultural factors that are almost imperceptible and do not necessarily directly relate to migration behaviour, for instance, strong family values that instruct family oriented migration.

Social class

According to the interviewees, the understanding of social class in the Chinese context might be different from the definition of social class in Western countries. When students were asked to talk freely around social class disparities, they did not usually have a clear definition of which class they belonged to. However, if the topic was more specific, such as “students from different family backgrounds”, interviewees tended to understand this topic better. In the majority cases in the interviews, students defined social class as two indivisible aspects: family wealth and parental political status.

The survey collected data related to household income, parental education level, domicile type, housing type, parental occupations and parental political status. Although household income as an indicator for social class is efficient, the data about the household income of students lacks adequacy and accuracy in the research due to various reasons. However, the survey data still shows class disparities among respondents from other aspects. More specifically, even though 31.3% of students in the survey were not sure about household income, the information related to other indicators that imply social class suggests that there is more disparity in terms of family background between different students than they might realise.

After a simplification of the social class definition, and when asked questions related to family background disparities, interviewees gave a richer interpretation related to social class. The broad suggestions were that students from higher social classes might chase different targets, or pursue different things compared to students from lower class families. Although students might graduate from the same level of university, their expectations and pursuits might be different in the first place.

Another aspect that appeared in the interviews is the influence of social class on the capability of realising migration aspirations. The most commonly suggested example is 'social capital and location-specific capital', which is related to family social status. From the interviews, this capital often manifests in the job searching process. Parental social relationships seem to be an essential element that helps students get certain types of jobs more easily within their parents' social network.

Some students that already have the capital accumulated by their parents' generation may naturally stand on higher steps than others. While students from lower classes might require their best efforts in finding a job to make a living and take care of their family, or be busy trying to climb the social hierarchy, students from higher classes may have fewer considerations about supporting their family or risk taking. In some industries, having social relationships makes it easier for students to get through the door. This may, to some extent, be able to explain the homeward migration trend of students from relatively higher-class families, as homeward migration has a stronger guarantee of a higher standard of living. However, as mentioned earlier, the greater ability to take risks and go through trial and error with family support can also make outward migration easier for these graduates than for graduates from lower classes.

Another aspect about common sense in the community within certain social classes was suggested by interviewees. For example there were students who mentioned that students from wealthier families have similar plans after graduation. From Tom, Jenny and Ariel's interpretations, it interests the researcher that going abroad for further education seems to be common sense for this community, and can have significant symbolic meaning. It seems that, in order to assimilate into this community, the symbolic importance of searching for further education in a foreign country is even more important than the real importance of

study. Therefore, regardless of academic achievement, and if they can afford it, these families tend to send their children abroad to get involved in the community after graduation.

Cultural factors

Confucius remarked, 'Whilst thy father and mother are living, do not wander afar. If thou must travel, hold a set course'. This '孝(xiao)' culture (filial piety) is an important part of Confucian culture, which has strong impact on the modern Chinese ideologies that are deeply rooted in Chinese people. Even though the form of Xiao culture has changed with time, with feudal and traditional backward elements being washed away, the essence of goodness - taking on the responsibility of supporting your parents, returning the grace of your parents bringing you up - has remained unchanged.

This is reflected in many students' concepts, considering parents and family as a factor is natural, automatic and happens without thinking. But at the same time, cultural tradition also has a deeper influence on other phenomena in graduate migration, such as gender disparity. Compared with other structural factors that are obvious and persistent, gender disparity is more hidden. There is some evidence showing that gender is a significant factor that influences an individual's mobility, (Zheng and Wu, 2017a, Faggian et al., 2017b, Faggian et al., 2007b, Yue, 2014) in a specifically Chinese context. Gender disparity appears in migration intentions and also in major discipline choices in this research. (This is more obviously reflected in the different gender ratios in the target universities (Wuhan University of Technology, 2018, Hubei Institution of Fine Art, 2018, Central China Normal University, 2018)).

This echoes the existing findings in gender disparities in the discipline choices of higher education and employment after graduation, where liberal arts and fine art disciplines have a pronounced higher proportion of female students (章梅芳 and 刘兵, 2006). In this

research, it has been found that the influence of cultural tradition has taken an important role in this gender disparity in graduate migration.

In one aspect, the historically patriarchal tradition is reflected in the gender stereotypes that still exist in modern Chinese society, where female students and male students have their 'fields of study' and where choosing these fields to study and work in may distinguish their feminine or masculine identities (Mullen and Baker, 2008, p. 172). This gender gap in university may have a subsequent consequence - when students are entering the labour market, imbalanced gender distribution in some fields works with gender discrimination in the labour market and exaggerates the gender gap. Acting with the professional counterpart system and disciplinary distribution phenomenon, the influence of gender disparities on graduate migration is complex and longitudinal, and needs further research.

In another aspect, 'the children were inculcated with the values of filial piety toward their parents, which included respect, obedience, and the obligation to care for elderly parents and respond to their needs.' (Deutsch, 2006, p. 367) This obligation acts differently on males and females in China. In the survey, the proportion of female return migrants and stayers was higher than male, while males had a higher repeat migrant rate. In the interviews, students gave the reasons behind this phenomenon. Female students in the survey frequently repeated themes around family responsibility taking, and there were even female students with intentions of suppressing their own demands, wishes and opportunities in order to take responsibility for their family and home town by homeward migration. Male students, conversely, are considered inheritors of the family and are more likely to be expected to explore and outward migrate, or homeward migrate to inherit the family business.

However, since this generation grew up when the one child policy¹³ was implemented, students also tend to move back to take responsibility for their family, as they are the only child in the family. With the core value of the continuation of the family, in the one child situation, the gender factor seems to be less influential than before. In other words, an only child, sometimes no matter their gender, will have to take on the responsibility of inheriting the family business and taking care of family members (playing the role of both female and male in the family), and tends to migrate towards home.

However, the disparities have negative consequences for not only female students, who are in a weaker position in the competition of the labour market, but for male students as well. In a context where marriage is considered a necessary element in life and not getting married is abnormal, these obligations and roles in romantic relationships give both males and females great pressure, and indirectly influence their life plans and their choices when facing the labour market.

Traditional family-based culture, in summation, enhances the emotional connection with one's family and hometown, which might lead to a stronger will of homeward migration. On the other hand, this value might also limit outward migration motivations like a shackle for some students.

Moreover, the free market and open-up policy that has developed in the new era comes with new values, such as the rise of individualism that competes with, and challenges, the traditional collectivism of Chinese families (Deutsch, 2006). In response to the conflicts

¹³ “The one-child policy was launched at a time when China’s political leadership was re-establishing its political legitimacy following the death of Mao Zedong in 1976. As part of the modernisation drive, a goal was proposed in September 1977, of reducing China’s annual population growth rate to below 1 percent within three years. By January 1979, official Chinese news outlets The People’s Daily and Xinhua News Agency reported and printed editorials that clearly called for one child per couple, with “at most two.” This policy was not an order nor a law, but an announcement.

between family and individual, between individualism and traditional family-based collectivism, both students and their parents are trying to search for a new way. By compromising between family responsibility taking and students' own wishes, students might choose to move towards a provincial capital that is close enough to their family but still relatively well developed. The introduction of the free market in China not only brought rapid economic growth to the country, but also contributed to the diversification in Chinese people's values. In this research, this manifests in the gradually increasing emphasis on human capital and individual ability in the job searching process in many industries, and the stronger will of self-actualisation that both parents and students hold.

Chapter 7

Discussion and conclusion

7.1 Introduction

The overarching aim of this research is to better understand the migration intentions of higher education institution graduates in Central China. Recall that, from a Chinese perspective, this is important because of concerns about brain drain from Central and Western provinces to the East Coast. From an international perspective, this is interesting as, due to cultural and institutional differences, Chinese graduates may not behave in accordance with the predictions of established migration theory, which is mainly informed by Western cases. Therefore, the researcher posed two main research questions.

- What are the migration aspirations of higher education institution graduates in Central China? What are the factors that influenced these aspirations most?
- Where and why do they want to move? Why are the policies intended to retain graduates in Central China not as effective as expected?

The first is based on existing Western research, investigating typical questions in migration research, which are about migration patterns and the factors that influenced these patterns. The second is based on the experiences and interpretations of individuals, seeking answers through students' interpretations and understanding of their own and other's migration intentions. Since migration behaviour is a complex process with internal procedures that are difficult to explain using numerical data, a mixed methods research design based on a pragmatist framework was applied, in order to address the research questions.

This research has covered a wide range of different findings that address the research questions. The following are the four stand out themes that the researcher would like to discuss in this chapter. The first and the most important discussion is to view migration as a dynamic process from a longitudinal and horizontal perspective.

The second is about the negotiation between family and other personal gains related to beneficial factors that come with outward migration. The traditional definition of return migration needs to be revised based on the motivations that drive this destination selection, instead of simply being defined in terms of where has been selected as a destination based on the definition in terms of the regional borders in political geography.

The third discussion is that this research has confirmed again the regional attractiveness theory, but also found a grey zone lying under the ‘needs’, ‘demands’, ‘preferences’ pyramid, where students are uncertain about what should be put in the range of destinations.

The fourth discussion point is that Chinese students exhibit a distinct migration pattern. Throughout the interviews, it has been found that the migration of graduates from Central China is influenced by special factors, and that the way their migration aspirations are shaped is also interesting in terms of the values they hold. The specifics of the Chinese context, such as the Chinese special education counterpart system and Chinese cultural factors, is manifested in the students’ interpretations.

As mentioned in the previous chapters, Chinese interregional migration, including the interregional migration of higher education institution graduates in China, stands out from the general trends of migration research in the world. Although Chinese migration research inherits various theories and methodologies from Western

migration research, Chinese migration trends have been found by Chinese researchers to be significantly influenced by some special factors in China, and have interesting Eastwards and homewards migration trends. (?) This might be related to the particular context of China, where specific structural factors have been reflected in migrants' value shaping process (or potential migrants, in this research). These factors include the centralised government and the democratic centralism that shaped a unique political and economic environment in China, the special counterpart system in education that might decide students' potential migration choices in the first place, and special Confucian and home/family based culture.

These structural factors, to some extent, restrict or facilitate graduate migration intentions on a broader scale. An example is the development disparities in urban/rural areas and Western/Eastern China. This economic geography of China may, on the one hand, work with the education counterpart system, which might result in the spatial disciplinary distribution of graduates. On the other hand, from a more micro perspective, it might also generate some of the motivation for Eastern oriented migration that graduates can have from early in their lives. The belief in 'seeking a better life' is deeply rooted in their life experiences, including family education, and will influence choices in many other aspects of their lives. Therefore, in this section, the discussion is around interregional migration aspirations of higher education institution graduates in the Chinese context, and the contributions to existing Chinese migration research.

7.2 Viewing migration aspirations from a chronological perspective

Through empirical research, a well acknowledged opinion that 'migration research should be not only investigated in terms of its outcomes, but also in terms of its

decision-making process' has been reinforced in this research. Similar to (Carling and Schewel, 2018), the researcher also found that a student's location choices are closely related to their original migration aspirations but also limited by their migration capabilities.

Will migration behaviour really happen when the net present value of a migration investment is positive? In my research, I have found some interesting phenomena. Firstly, students are well aware of the places that might bring them maximum return, but some still actively give up on this and decide to move to other regions. This is due to a range of different reasons, such as following their parents' suggestions, taking responsibility for their family, or having a strong emotional connection with their family. One student interviewee even actively restricted outward migration by applying to be a pre-service teacher before entering university.

Secondly, in the survey, it was found that when respondents were asked questions (in more general terms) about their ideal situation e.g. 'If you have the chance, would you prefer to stay in the same region that you decided to move to after graduation', the potential repeat migration rate was 20% higher than the real situation. This suggests that the ideal expected situation is usually different from the real short-term migration plan for higher education institution graduates. This echoes the other important theory that has been applied in this research, the two-step approach suggested by Carling and Schewel (2018). In this approach, the authors viewed migration behaviour from a psychological perspective, with a 'break-up of migration into two separate steps: the evaluation of migration as a potential course of action and the realisation of actual mobility or immobility at a given moment.' (Carling and Schewel, 2018, p. 947). Voluntary migration behaviour will only happen when migrants have migration aspirations and have migration capability. The findings align seamlessly with Carling and Schewel's framework concerning the vital internal forces that migrants possess

prior to engaging in migratory actions. As noted in the literature review, migration aspirations and intentions share similarities yet differ conceptually; aspirations tend to be less constrained by objective limitations and migration capabilities, while intentions are comparatively more restricted and pragmatic. Nonetheless, does this negate the need for examining migration aspirations? Drawing from our research, an answer can be provided: students who intend to remain in Wuhan but aspire to relocate elsewhere may still exhibit a strong desire for mobility within a decade. This could potentially signal negative implications for cities and regions grappling with severe brain drain issues. Such evidence underscores the significance of approaching migration as a longitudinal process unfolding over time.

From this viewpoint, it is crucial not only to consider factors influencing short-term decision-making processes related to migration but also those affecting other life stages of migrants. This proposal transcends merely supplementing Carling's two-step model; rather, it advocates for expanding investigative lenses when exploring how both aspirations and intentions are molded within the context of migration phenomena.

The two-step approach suggested the theorising of migration aspirations into three conceptualisations that intersect with each other.

First is classically viewing migration aspirations as a comparison between places. Whether to migrate to a place or not depends on the result of a comparison of regional characteristics in different places, and the value of these factors is driven by one's demands and preferences. This concept is similar to classic mainstream theories such as push-pull theory, though the potential destinations present through 'local existing ideas and meaning attached to these places' (Carling and Schewel, 2018, p. 953). This process happens in every participant in this research, as we discussed in previous chapters.

Secondly, it has been suggested that it might be possible to see migration aspirations as a comparison of culturally-defined projects. Researchers suggested that ‘people’s notion of migration is often based on a “migration project”, a socially constructed entity that embodies particular expectations.’ (Carling and Schewel, 2018, p. 954). The meanings that are attached to places and which produce the ‘migration project’ should not be ignored, and migration should not be simplified and interpreted only as a comparison between places based on preference, when cultural-defined projects take an important place. This research reinforced that perspective. The influence of cultural factors (which are considered part of structural factors) on higher education institution graduate migration aspirations is one of the most important findings in this research.

When homeward migration aspirations are shaped, the notion of original domicile is no longer only ‘a region with high location specific capital’ or ‘a region that contains social relationships’, but a representation of ‘responsibility of home’, a ‘safe harbour’. Homeward migration itself is interpreted as a behaviour that fulfils social and cultural expectations of Xiao and family-centred values. That might explain why some students decide to return to their home town or restrict their migration possibilities by choosing to be a pre-service teacher, even when objectively comparing regional characteristics indicates that there might be places that could provide more benefit and return for the potential migration within their ability.

The elements that have structured the theoretical framework in this research are push-pull theory, cost-return theory, and regional attractiveness theory. There is a really important common ground that should be taken into consideration - these theories often view migration behaviour as a dynamic process.

It is always meaningful to investigate the motivations for, and reasons behind, voluntary migration as an active behaviour. One way of understanding these motivations is to see them as 'objects'. What has been emphasised in this research is the difference in how agents value 'objects'. These 'objects', include objective factors such as different characteristics in different regions (e.g. in push-pull theory this usually refers to factors such as local unemployment rate, in place attractiveness theory this refers to different regional characteristics that can fulfil migrants' needs, demands and preferences). They also include objective behaviour, as in cost-return theory - what is considered an 'investment' or 'cost', and what is considered a 'return' is highly related to an individual's values. This process should be dynamic, as discussed in existing theories, and needs to be investigated from a life-course perspective. In addition, we can apply a life-course perspective to investigate the migration decision-making process itself, and focus on the short time period when migration behaviour happens (or migration aspirations are shaped), e.g. taking into consideration the differences in the ways that different age groups view the same objective factor. The researcher suggests broadening the research lens to investigate how these motivations/values have been shaped in migrants' life experiences (or in this research, potential migrants), and to investigate how structural factors have shaped these values in a certain context, viewing migration behaviour from a more longitudinal perspective. This is the key discussion of this research.

In the value shaping process, life experiences take an important place in how students value different objective factors, which might become a key point in investigating students' migration choices.

The most significant discussion in chapter 6 was how important life-experiences can influence migrants' values and finally influence their migration aspirations. There is the clear relationship between observed factors that has been universally acknowledged in the academic field, but the deeper meanings of the aspirations and choices are yet rarely discussed. Regional political debates focus more on how to attract and retain skilled workers (Niedomysl et al., 2010). In this research, the researcher has discussed how values are shaped from a chronological perspective, and has taken an in-depth look at the relationship between a student's life experiences and their migration aspirations. It is quite clear that the life experience factors have both direct and indirect strong influences on migration aspirations after graduation.

By separating the value shaping process into three stages (before university¹⁴, university experience, facing graduation), the researcher found some interesting evidence from the interviews (see chapter 6).

The choice of university location is usually based on the restrictions of objective factors, such as College Entrance Examination scores and parental influence, and by the time students have passed the CEE, they face the first great decision and major turning point in their lives. With the uncertainty about their future, and in China's case, a short period to make their choice and lack of adequate information about potential destinations, this decision is usually education oriented. University quality and ranking are considered as life-course related factors, and this is consistent with the regional attractiveness theoretical framework.

¹⁴ Here referring to life experiences before the CEE

As time passes, however, the values of students gradually change and get constructed. During their four-year university life, students not only have the chance to experience new things and construct their attitudes towards possible choices of ideal locations for long-term living in the future, but they also have the chance to re-examine the choices they have already made. Here, the most important finding in this research is about the relationship between new experiences and information about different regions an individual has received, and their migration aspirations. Attitudes towards various regions are significantly different according to the different levels of adequacy and accuracy of information an individual gets about a region.

When students are facing graduation and the pyramid of regional attractiveness is almost shaped, students will have more detailed opinions on different potential destinations, and will have a clearer idea of their own needs, demands and preferences. The researcher categorised the students into three different groups based on the initiative in their migration choice, while analysing their migration destination choices based on Niedomysl's regional attractiveness theoretical framework. The regional attractiveness pyramid that influences students' attitudes towards different regions when they are facing graduation was reflected in the process of migration choices and destination selections of the majority of the interviewees, especially the group of interviewees who had more moving initiative than the other groups.

Moreover, the researcher found some special life-course related factors that influence individual migration choices, such as romantic relationships, fandom, etc. This finding is also consistent with Niedomysl's theoretical framework (Niedomysl, 2010). In the regional attractiveness theory, (Niedomysl, 2010) has the life-

course factor as an important element, where ‘In some situations (often related to life-course changes) a demand may tentatively turn into a need and vice versa...’ (p.103). He argues that the strongest finding in his research is that place attractiveness is best viewed and understood from a life-course perspective. Place attractiveness is positively related to the degree to which ‘needs, demands and preferences’ may be fulfilled at a certain place. But these three elements will change and transform in different life phases. Similarly, in cost-return theory, suggested by Sjaastad (1962), ‘Age is significant as a variable influencing migration and must be considered in interpreting earnings differentials over space and among occupations.’ Although cost-return theory is based on an investment perspective, Sjaastad suggests that the meaning of investment, and efficiency of investment varies among age groups. For older people, the difference in income is bigger, but they also suffer from bigger capital loss than young people, and have less life remaining, which limits large additional investment in themselves. While Sjaastad discussed the importance of the age factor in his theory, he also suggested the life-course perspective.

7.3 The influence of latent factors on graduate migration choices

It needs to be considered that the range of choices of potential destinations of higher education institution graduates are pre-limited by some latent factors of society. In addition to the observed factors that directly work on the migration aspiration shaping itself, the researcher found that there are some broader factors that work from a higher dimension. They not only work directly on migration behaviour itself (here including migration aspirations and capability), but also work on the shaping of migration aspirations, and the shaping of the values of individuals. These factors are difficult to define, they overlap with structural

factors, and the way they take effect is more difficult for researchers to capture. The researcher has defined them as latent factors in this research. These factors actually pre-decide the range of potential migration destinations for graduates.

(Zhao and Hu, 2019) noted that Chinese scholars and policy makers have argued that higher education ‘presents an equal-opportunity route for Chinese young people to achieve upward social mobility’ (p.15), and attending higher education is often considered as a ‘life-changing’ event in a student’s life. However, Zhao and Hu found that education migration return is significantly higher for young people of urban origin than young people of rural origin. In Zhao and Hu’s opinion, urban-origin young people may access ‘place premium’ by moving between provinces, while they have better capabilities of navigating geographical mobility. Urban-origin young people may also enjoy a higher baseline salary. This structural disparities of Hukou, which stratify to what degree rural and urban young people can benefit from migration socioeconomically, actually exacerbate the existing inequality.

In this research, it is also an important finding that there are structural factors that make migration behaviour itself at a different baseline for different students. Using a simplified example, let us consider these potential regions as stuffed into boxes of different sizes, the size of boxes is different among students, and what has decided the size of boxes is actually different dimensions of the structural factors. For example, students from a family with higher social status might have greater chances for trial and error when choosing their location for first employment, or have less cultural responsibility, or have greater Guanxi that helps them get employment in their ideal location, while having a relatively higher economic return than students from families with lower social status. It is clear

that, in addition to investigating why students choose destinations from the box, it is also meaningful to investigate why the boxes have different sizes.

A more complicated situation is that these latent factors often have interactions with each other. For example, cultural tradition gives female and male students pressure from different dimensions, female students are expected to focus more on taking care of family and family members, while male students are given more expectations on the financial aspects of supporting their family.

Cultural factors interact with the education counterpart system, which may result in the gender imbalance in high schools and in different majors, with a chain reaction influencing the gender disparities in different industries. This, together with the economic geography in China, results in the gender disparities in migration destination choices. However, the influences and mechanisms are relatively latent and complex, and difficult to simply and directly manifest through numerical data. Culturally defined projects are often reflected through the understandings and meanings that are attached to a region by migration behaviour subjects, which reinforces the importance of investigating migrants' values.

This is why the theoretical framework of this research expanded the research scope from investigating graduates' aspirations themselves, to investigating aspirations from a longitudinal and horizontal perspective. The longitudinal perspective is to investigate how students' values towards objective factors that influence their migration aspirations have been shaped through investigating their life experiences. This expands horizontally to the latent structural factors that have influenced all phases of graduate migration, including students' value

shaping processes, values themselves, migration aspirations, capabilities (and migration behaviour that might happen in the future).

7.4 The negotiation between family and economy and the new definition of return migration

Another important pattern of graduate migration intentions that cannot be ignored is the high percentage of potential return migrants. As shown in chapter 5.2.2, the majority of students intend to move back to their province of origin after graduation. This strong intention of moving back to one's home town is slightly higher than the general trend of higher education institution graduate migration in China, where, according to the sixth large-scale questionnaire survey on graduates nationwide that has been carried out by Peking University since 2009 (Yue, 2011, Yue and Li, 2016, Yue, 2014), the largest percentage of graduates are 'stayers' who enrolled in local universities and stayed in the same province after graduation. Similar patterns have been shown in other research that involves national scale sample survey data (Zheng, 2018).

Returning home was a significant trend, not only in the survey, but in the interviews. 'Home' and 'family' were also important themes frequently mentioned by the interviewees. This theme usually manifested through interpretations related to the emotional attachment to family and responsibility taking towards family, and a discussion of the cultural root of this family-based value is necessary. This family-based tradition not only works directly on graduate migration aspirations by itself, but also interacts with other factors such as the

education counterpart system, gender disparities, and also latently influences the value shaping process of students throughout their lives.

Confucius remarked, 'Whilst thy father and mother are living, do not wander afar. If thou must travel, hold a set course'. The culture of 'Xiao' (filial piety), which is an important element of Confucian culture, still has a strong influence on modern Chinese people. This traditional ideology has changed its manifestation in modern Chinese society, but the core values remain unchanged, including returning the grace of your parents bringing you up and taking responsibility for one's family. This is reflected in the interviewees' interpretations, as for most of them, considering parents and family in their migration decision making process is natural, it happens without thinking.

Other than the responsibility that home represents in a student's migration aspirations, which is influenced by traditional culture, home has another meaning - safety and security. As found in this research, most students tend to move towards an environment that they are familiar with or where they have certain social relationships. People naturally have an attachment to their home town and family. For graduates, home not only provides students with familiarity, but also acts as a safe harbour that minimises the potential risks that students might face when migrating outwards. This means that the responsibility for families is two-way, both students and families naturally take responsibility for taking care of each other. This is consistent with the family-based culture that considers family as the smallest social unit, drawn together in order to develop/defend itself.

However, with the development of the market economy, after the economic reform and open-up policy, the conflict between a student's individual development and the reserved and family oriented traditional culture (here

usually related to strong parental control) actually reflects the contradiction between traditional culture and individualism. In response to the new era, both parents and children are searching for a new way.

To conclude, traditional family-based culture influences students' migration intentions in two ways. First, the enhanced emotional connection with family, and the will to take the responsibility for their family, makes the voluntary homeward migration intention stronger. Secondly, this strong family value chains, or limits outward migration motivations. It manifests through the strong parental influence on students' values towards graduate migration. For most of the interviewees, no matter what individual characteristics they had, and no matter whether or not they were willing to accept them, parental advice, suggestions or commands usually played an important role in their lives..

History cannot be excluded when discussing culture and traditions, a pattern of behaviour and a special kind of culture that becomes a tradition should always look back to its historical root. (Ge, 2009) 'The state of "co-construction of home and country" is one of the important characteristics of ancient society in China.' (Shu, 2003, p. 35) . To describe this further:

In terms of the relationship between family members and the family as a whole, it is emphasised that the family is above the individual, and personal interests should be subordinate to family interests. (China has always been a country with collectivism as its ideology. It is considered right to give up one's personal interests for the sake of one's family or community).

This culture also emphasises the responsibility of each family member to the family and this responsibility should last throughout their lives.

The traditional family-centred values include the meanings of “family-centred” and “ancestor-centred”. The responsibility to continue the family and bring honour to the family is the best example. (Yang, 2011)

The isomorphism of home and country was originally born from the small-scale peasant economy with the family as a basic unit and ‘a closed political system and a single social ideology corresponding to it’ (Shu, 2003, p. 32), with a core of blood-oriented politics. Confucianism, which was used as a tool to maintain feudal rule in economic, political and cultural aspects, has given soil for the growth of “co-construction of home and country” and “home-centred” culture. In this culture, it is a common situation in Chinese families that the elder generation lives with the younger generation, and in a more traditional family this can reach to three or even four generations.

Even though students are living with their families, and receive instructions, suggestions, advice or commands from their parents, some of them will still decide to outward migrate to a job which fulfils their expectations. Here comes another important finding: the conflicts between new and old values are also reflected in family education and parental influence. This is sometimes reflected in the conflict between a student’s migration aspirations and their parents’ ideas, and sometimes reflected in parents choosing to go with the tide of historical development and reform their way of family education.

In response to the conflicts between families and individuals, between individualism and traditional culture, it is clear from the interviews (refer to chapter 7.4) that some graduates are hoping to have a balance between traditional virtues and their individualism. This means that they are willing to give up some personal gains (such as personal development opportunities) to negotiate with their family, and to achieve this balance. At the same time,

for some students, the conflicts between their parents' values and their own are not obvious, and students are still influenced by Chinese traditional virtues. A compromise would be homeward migration but not living with one's parents. Moving to the capital city of the province of origin, moving towards provinces next to the province of origin, or moving back to one's home town but not living with one's parents could all be examples of this.

In the researcher's own opinion, since the intention of moving to regions close to the family domicile is also an active choice based on the motivation of family-oriented migration, rather than simply including 'return migrants' in research related to family and hometown attachment in migration, a new definition of homeward migration, which includes the migrants who have motivations of moving homewards, might be more sensible.

7.5 The grey zone in the regional attractiveness pyramid

The main discussion of regional attractiveness theory is restricted to the decision and migration behaviour itself at a point in time (or a short time period), rather than investigating longitudinal reasons or causality. However, the interesting findings in this research bring forward an argument that the students' life experiences in earlier stages, even before entering universities, also have strong influence on their final choice of locations when they are facing graduation and the labour market. To put it more clearly, this has a strong influence on the way their decisions are made.

Although the finding is consistent with the pyramid of regional attractiveness, the researcher still tends to argue the small gap between the finding and the theoretical framework. Including places that are contained in the 'needs', 'demands' and 'preferences' layers, the places that are not considered as choices are arguably essential as well, since the reason that a place that will not be chosen is not as simple as being unable to provide potential survival,

but the number of choices are also influenced by information about the region. In addition to the regions that have certain factors that make graduates definitely avoid them, there is a 'grey zone' lying under the bottom of the pyramid. This 'grey zone' includes regions about which students do not really have enough information, and they have not considered going there or not.

7.6 The special context of China that has a strong influence on graduate migration intentions.

Since this research is aiming at the retention of graduates in Central China, the Chinese context is an important discussion that should not be ignored. Since 'context' is a word that covers a wide range of aspects of a society, the researcher has selected the two key issues of this research to discuss in this section. These are related to the interactions between Chinese economic geographical factors and educational system, and Chinese traditional culture. The first is discipline oriented migration intentions, and the second is Eastward migration and big city oriented migration intentions. These two themes reflect the influence of the Chinese context on graduates' migration intentions.

7.6.1 Discipline oriented migration intentions - an interaction between economic geography and the specifics of the education system in China

Discipline oriented migration patterns, influenced by classic factors, such as job opportunities, are related to imbalanced regional development, but may also be influenced by the interaction of economic geography and the special education system in China.

Since 1978, the reform and opening-up policy has brought with it a key strategy based on the maxim that ‘the rich bring along the poor’. This was in order to maximise the speed of economic development by choosing key areas for development, including Shenzhen, Zhuhai, Shantou, Xiamen and Hainan, which are five key cities in the Eastern coastal area. Then the policy broadened its applied range. While remarkable results have been achieved since the implementation of the policy, the development gap has become wider and most significantly, the GDP gap between Western, Central and Eastern China is wider than ever before. Even until the 2020s, the aim of coordinated development between regions that developed first and regions that are developing has still not been realised. (He, 2011, Gao and Ke, 2020)

As suggested by a large number of researchers, economic factors caused by this unevenness (such as wage levels, employment opportunities (Niedomysl et al., 2010, Faggian et al., 2015) underpin some of the most important motivations in the regional migration of graduates.

The unbalanced development and the development policy also raises a problem carried over from the past, which is regional industrial structure. The “sectorisation” of China makes some parts of the country (such as North-East China and North-West China) centres of heavy-industry, while emerging industries and high-technology industries are distributed in the Eastern coastal area. This is not only related to the development strategy of the Central Government, but also related to the natural geographical features of regions and the distribution of natural resources within the country. After the strategy for the rise of Central China was created, Central China has been committed to adjusting its industrial structure, developing third industry and attracting talent in emerging industries. (Gao and Ke, 2020) In this process, a disequilibrium of industrial structures between regions still exists, and significantly influences the discipline specific distribution

of graduates. This sectorisation of China was reflected in the students' descriptions of higher education institution graduate destination choices, which had great disciplinary distribution. For example, some students pointed out in their interviews that students aiming at high-tech industries or emerging industries such as science, special education, fashion, animation and visual media, have the same tendency to move towards Eastern China and big cities to search for jobs, but also have some particular concentrations. The most typical example from the interviews was students intending to work in the game industry. Almost all the students in the interviews who mentioned the intention of working in the game industry showed aspirations of moving towards Eastern China.

Apart from the influence of spatial industrial distribution itself, whether or not students from certain majors have a tendency to be spatially concentrated may also have other reasons. These include whether or not the jobs related to their major are closely dependent on the geographical distribution of industry, and whether jobs match their major or not. For example, interviewees who majored in liberal arts mentioned that they thought liberal arts students are more likely to be geographically distributed according to social networks rather than industrial structures.

Here is a missing question between disciplinary distribution and regional imbalance. Referring to chapter 5.2.5 in this research, it has been found that, among students who decided to find a job, 78.7% of those students chose to work in the field that they majored in. With the combined effect of geographical industry distribution in China, this indicates that the geographical development gap, especially in terms of the difference in industrial structure, may have a strong influence on the geographical distribution of graduates.

Also, according to the Employment Report for College Graduates in 2020, based on big data of the users published by 58.Com Inc¹⁵, over 90% of graduates have found jobs that match their major.

However, as discussed in chapter 6, the decision of discipline before entering university has some structural restrictions. Whether students can choose a discipline or not is not simply related to their aspirations, but their CEE scores and their discipline in high school. Therefore, the present situation of the discipline specific distribution of graduates has many other in-depth reasons, in addition to unbalanced regional development. For example, a more practical reason given by the interviewees is the education counterpart system. The education counterpart system in China can be separated into two main components: the separation of Liberal Arts and Science in high school, which might highly limit major selection in university, and the major-job counterpart system in the labour market after graduation.

Major-job counterparts have been defined by some researchers as the knowledge and skills (including university general education, basic knowledge of the subject, and specialised knowledge or professional knowledge) that students have accumulated through education matching the knowledge and skills the job needs. (He and Long, 2009) This counterpart system has been considered an important indicator for higher education institution graduate employment quality in China, and also considered an important process of transferring higher education institution human resources to human capital. (He and Long, 2009, Hu, 2001) However, in this research, the negative consequences of the counterpart system were more

¹⁵ A Chinese Life service classified information website

frequently mentioned by interviewees, such as barriers for students who majored in educational studies working as secondary school teachers.

Another perspective from the statements of the interviewees is that occupation choices seem relatively narrow for liberal arts students, and they think the barrier between different disciplines is obvious in the job searching process. However, traced back to the root, this division of disciplines starts in high school. For these students, their high school discipline choice will have a broad influence on their major choice in university, and will also deeply influence their occupation choices after graduation, due to the education counterpart system. Different from the broad positive consequences of the counterpart system suggested by existing research (Cai, 2009), when some students described their job searching process in this research, the counterpart system seems to have given them a great obstacle and limited their potential choices even before entering Higher Education Institutions. These two counterpart systems work together - the counterpart system in the CEE limits choice of majors in Higher Education Institutions, and the counterpart system in employment may further influence certain patterns of migration behaviour and location choices. (see chapter 2.4.3)

7.6.2 Eastwards migration and big-city oriented migration intentions - family background and the pursuit of a 'better place'

Eastwards migration and big-city oriented migration intentions are another common pattern in this research. However, the motivations behind these destination choices vary. Through the survey, it has been found that there are social class disparities in the influence level of certain factors in graduates' migration intentions of whether to move outwards from Wuhan or not. In the interviews, the researcher found that Eastwards migration intentions might

represent the pursuit of a 'better place' in graduates' perceptions. From the interviews, it was found that this belief in searching for a better place manifests more strongly for students from lower class family backgrounds. From the investigation about how social class, or in this research, graduate family background, has influenced their migration intentions and destination choices, the researcher also found the importance of focusing on students' value shaping and decision making processes when investigating their migration intentions.

The Eastwards migration intention is one of the most obvious patterns of higher education institution graduate migration in this research, and is consistent with existing research in Chinese internal migration trends (Qi et al., 2017). As shown in chapter 5.2.2, the majority of outward migration from the target city, Wuhan, is towards Eastern China.

However, while there is the big picture that students' graduate migration has been influenced by the economic disparities in different regions, in this research (and different to existing research) students were actually aware of many different aspects and disparities of different regions and were making choices based on the information they received. Economic factors and amenities may not be considered as the most important determinants for graduates these days. In Chapter 5.3 the researcher used a binary logistic regression to demonstrate that typical factors such as economic factors (including job opportunities) and amenities do not appear to be so influential on students' outward migration from their higher education institution location. Instead, environmental factors and partner's choice are more influential on their migration aspirations. At the same time, from the interviews, students have shown their awareness of regional disparities, are making relatively

rational choices based on the information they have received, and are well aware of the pros and cons in the choices they have made.

This does not mean that the factors emphasised in the theoretical frameworks of migration research (e.g. push-pull factors, equilibrium-disequilibrium theory (Niedomysl et al., 2010, Hunt, 1993, Faggian et al., 2015, Graves, 1983)) are not influential at all. These factors actually interact with other factors and have a relatively stronger explanatory power for students with certain characteristics. More specifically, in this research, after categorising respondents based on their characteristics, the researcher still found that for certain groups of students (for example, only children) with Urban Hukou, and students from the capital of a province, economic opportunities are still considered most influential, while for female students, amenities have relatively more influence on their migration aspirations than other factors.

In the interviews (see chapter 6.1.4), the researcher consistently found a relationship between Eastwards and big city oriented migration intentions, and family backgrounds. Students described this Eastwards and big city oriented migration intention as 'moving towards a better place', and this intention of moving towards a 'better place' theme is more common in students from relatively lower family backgrounds. For students who are aiming at a better destination, Central China might act as a 'springboard' or 'elevator', which helps them gain human capital, and increases their probability of moving towards their ideal regions. At the beginning, the researcher defined this relationship as the effect of social class on graduates' migration intentions in China. However, the numerical data and interpretative data clearly shows that perception of the definition of social class varies among students. For students, social class is a relatively difficult

issue to discuss. This is related to the complexity in definition and classification of different social strata in the Chinese context (see chapter 2.4.3).

The survey collected data relating to household income, living conditions, parental occupation and parental education level. The majority of respondents in the survey were not sure about their household income, or chose not to talk about their income situation. This may be because household income includes various components from different sources, and is difficult to calculate.

Referring to chapter (7.2.2), although students were not clear about whether there are differences in social strata or about the influence of social strata on the migration tendencies of higher education institution graduates, respondents did report significant differences in their family backgrounds in various aspects.

This cannot be used to confirm or contradict the idea that most Chinese undergraduate students are middle class, but it does suggest that there is more disparity in terms of family background between different students than they might realise.

The survey collected data related to household income, parental education level, domicile type, housing type, parental occupations and parental political status. Although household income as an indicator for social class is efficient, the data about household income of students lacks adequacy and accuracy in the research due to various reasons. However, the survey data still shows class disparities among respondents from other aspects.

As mentioned above (refer to chapter 7.2.2), the survey collected different aspects of respondents in terms of their family background. Household income, one of the most efficient indicators of social class, did not show significant disparities among respondents, since 31.3% of students in the survey were not sure about household income. Even after selecting respondents who efficiently answered

questions related to household income, the logistic regression still did not show a significant result on whether or not there are disparities in the factors that influenced their outward migration intentions.

However, in the survey, other indicators that imply social class showed more disparities between students in terms of family background, and students also talked about the relationship between family background and migration aspirations in the interviews.

After explaining other aspects of social class and family background to the interviewees (such as original domicile, family housing, parents' occupations), students gave a richer interpretation. It has been broadly suggested that students from better family backgrounds might chase different life targets compared to students from relatively lower class families. Graduation from the same university will not change the disparities in expectations and pursuits, which might already be different before entering university.

The influence of social class on the capability of realising migration aspirations is another important aspect that appeared in the interviews. For example, there is the relationship between 'social capital and location special capital' and migration aspirations. These types of capital, which are closely related to family social status, often manifest in graduates' job hunting process, where parental social relationships and social networks play an important role in certain job fields. It might be easier for students with parents who have higher social status and have broader social relationships to find certain types of jobs, and it might, therefore, be easier to choose destinations within the spatial and social range of one's parents' influence.

Some students who already have the capital accumulated by their parents' generation may naturally have more advantages than others. While students from families with relatively less advanced backgrounds might require their best efforts in finding a job to make a living and take care of their family, or be busy trying to climb the social hierarchy, students from higher classes may have fewer considerations about supporting their family or risk taking. In some industries, having social relationships makes it easier for students to get through the door. This finding is consistent with existing literature as well. 'Accordingly and consequently, the possession of capital, particularly social capital, has been regarded as the most predictive factor determining the job search results of job seekers.' (Liu, 2016a, p. 99) Researchers have investigated the social capital embedded in social networks and examined how social capital works on job searching. There are claims that, due to higher social status and social contacts, students with higher social class will receive more valuable job information in obtaining better jobs.

Empirical evidence can be found in the Blue Book of Graduate Employment, which suggested the correlation between parental occupational status and graduate employment income. (MyCOS, 2009) For example, an empirical study which applied Swedish population-wide data found that, for manufacturing jobs, referral hiring is common. Empirical evidence has shown that plants are more likely to hire employee's children. This effect is stronger especially for those who are working in the same field as their parents. (Kramarz and Skans, 2007)

This may, to some extent, be able to explain the homeward migration trend of students from relatively higher-class families, as homeward migration has a stronger guarantee of a higher standard of living. However, as mentioned earlier, the greater ability to take risks and go through trial and error with family support can also make outward migration easier for these graduates than for graduates from lower classes.

These findings make it easy to draw a conclusion about graduates from higher-class families, where their parents' higher social status and social capital will help to lessen limitations on their migration choices. However, another aspect about common sense in the community within certain social classes was suggested by interviewees.

For example there were students who mentioned that students from wealthier families have similar plans after graduation. From Tom, Jenny and Ariel's interpretations, it interests the researcher that going abroad for further education seems to be common sense for this community, and can have significant symbolic meaning. It seems that, in order to assimilate into this community, the symbolic importance of searching for further education in a foreign country is even more important than the real importance of study. Therefore, regardless of academic achievement, and if they can afford it, these families tend to send their children abroad to get involved in the community after graduation.

7.7 Conclusion and limitations

The departure point for this paper was the situation that Central China is suffering heavily from brain drain, while a large number of students graduate from Higher Education Institutions in Central China every year. The present findings have shed light on the influential factors and reasons behind this situation. Investigating questions around what has influenced 4th year students' migration aspirations and destinations, and the reasons behind these aspirations, through analysing first-hand data collected from three target Higher Education Institutions in Wuhan, this mixed methods research has answered the research questions in different dimensions.

Summary of key findings

The first question that has been answered is where graduates from Central China intend to go, and what factors are most influential on their migration aspirations. The results have shown that, geographically, graduates still have strong intentions of moving Eastwards and moving towards big cities. However, different from existing research, the most influential factors on whether students intend to stay in Wuhan or move outwards, are living arrangement and partner's preference. After categorising respondents in terms of their personal characteristics, it has been found that certain respondent groups have their own special patterns and influential factors.

The most significant ones are:

1. In terms of discipline, creative art students have stronger intentions of staying in Wuhan. This might be related to the high local enrolment rate (67.7%). Liberal art students have strong intentions of moving towards their original domicile. This might be related to the large percentage of pre-service teachers among liberal art respondents.
2. In terms of ethnicity, Minority students unexpectedly have strong intentions of return migration
3. In terms of social status and family background, family background might be influential on students' outward migration, especially financial situation. Students who have families with better real estate will be more likely to intend to move away from Wuhan than stay there. Students with rural Hukou, and those who live in less developed areas such as rural areas, county-level and prefecture-level cities also have stronger intentions of moving outwards. Economic factors are more influential on students with urban Hukou, especially students from provincial capitals, and students who are an only child.

4. The short-term migration intention does not fully reflect student's long-term living plans, since the ideal situation is sometimes different from the real migration capability of graduates.

Through the interviews, more in-depth reasons behind the phenomena from the questionnaire mentioned above were explored. Although Central China has a large number of Higher Education Institutions and a large number of graduates every year, a great percentage of graduates use Central China as a springboard to move towards other regions that are considered better places to live. However, the reasons behind the strong intention of moving outwards are much more complicated than the factors that were set in the questionnaire.

From the interviews, it was found that:

First of all, students value different factors differently, based on how their values are shaped through their life experiences. In some senses, the process of value shaping is at the same level of importance as the migration decision-making process in the migration research field.

Secondly, the influence of latent factors that were hard to discover through the questionnaire become more obvious through the interviews. In this research, this was especially true in understanding how cultural factors have a strong influence on both students' migration aspirations when facing graduation, and also their value shaping process (which is emphasised in point one, above). Family social status and background also have a strong influence in reinforcing or constraining a graduate's migration aspirations in the first place (though this is consistent with the questionnaire).

Thirdly, the special context of China, especially the education system, is influencing students' migration aspirations, and the counterpart system limits students' career and location choices from high school.

Moreover, the adequacy and accuracy of information about certain regions that students are able to gain from their life experiences is also related to whether these places will be considered potential destinations or not. These in-depth reasons can only be expressed and interpreted by graduates themselves.

Contributions to the existing research field

From a methodological perspective, this research has emphasised the importance of applying mixed methods in the migration research field. A large number of reasons behind graduates' migration intentions and their destination choices are very subtle and can be hard to discover through a simple survey. Open questions in a survey may remedy this shortfall, but qualitative methods that directly involve graduates' interpretations (such as semi-structured interviews or focus groups) seem to be the best choice when investigating the reasons behind migration patterns. Mass survey is more suitable for macro perspective migration research, but when trying to gain an in-depth understanding related to this issue or investigating certain micro-groups of migrants (in this research, graduate candidates from Higher Education Institutions in Central China), a mixture of different methods based on research questions is more suitable.

From a theoretical perspective, a new way of viewing migration behaviour has been suggested by the researcher. Developed based on the two-step approach suggested by Carling and Schewel (2018), the migration process should be divided into two steps: migration aspirations, and migration capability. The voluntary migration of an individual

will only happen when both steps are fulfilled. This research confirmed this theory, but also suggested a more chronological perspective on viewing migration behaviour. The Migration decision-making process is like the tip of an iceberg, and the rest of the iceberg is hidden in individuals' life experiences. In this research, specifically, the final behaviour is the result of a ripple effect of students' observed experiences (especially new experiences they have while at university); latent factors such as cultural and social status, the education system and the economic geography of China; and other factors that are still hidden and waiting to be explored. In other words, it is not only the migration patterns and factors that influence these patterns that are important, but also how the migration choices are made, and how life experiences and latent factors influence how these choices are made.

Another contribution to the research field is about the categorising of migrants. In this research, it has been found that some students have strong intentions of moving homewards but do not have strong intentions of staying with their parents. They compromise by living nearby instead, for example, in the capital city of the province, or in a neighbouring province. Based on the classic definition of return migration, these students are not considered return migrants, however, the motivations for these students' homeward migration are clearly similar to 'return migrants' as defined by regional boundaries. Although the way of categorising migrants based on the result of their actions and their final destination is sensible, simple and universal when analysing massive population movement data, it has been suggested by this research that the motivation for migration should not be ignored when categorising migrants.

Limitations of this research and suggestions for further study

Through this empirical research about Chinese higher education institution graduates' migration aspirations, there are some issues that remained unsolved and are worthy of further research. There are six main dimensions and possibilities suggested below.

a. The sample size might not be large enough to generalise quantitative results to the whole country/world, but the combination of quant. and qual. data in this research is thorough enough for investigating graduates from Central China.

b. It is difficult to get in touch with policy makers in China, due to the specific polity in China. Therefore, it is difficult to know how the structural factors impact graduates from a policy making perspective.

c. The participants in the interviews might be pre-selected, since personality factors are also involved in migration decision making - whether an individual is adventurous or not will influence their migration pattern. In this research, it was impossible to interview students who are shy or introverted, and were not willing to talk or participate. This led to a possible bias where the explanation of personality factors is not comprehensive enough. However, the survey was combined with interviews in this research, and this decreased the negative effect of this limitation.

d. The researcher was initially going to do a follow-up study, but it was very time consuming and unrealistic due to the time limitations of the PhD programme. Therefore, the researcher left space to do the follow-up study in the future.

e. The reasons behind the situation that classic factors, such as economic and amenities factors, are not as influential as environment and partner's choice factors need further investigation.

f. The situation that a large percentage of students are not willing to disclose, or were not sure about, their household income makes it more difficult to define a student's

family social status. In the future, it might be possible to calculate this through a bigger data set.

Appendix

Appendix 1 Interviewee information

Ada

Ada is a female student majoring in Educational Studies at CCNU. She is a Wuhan local. After university, Ada is going to continue studying and get a Master's degree in Wuhan. After getting the degree, she is going to stay in Wuhan. As Ada mentioned in the interview, she lives in a family with strong parents who both work in kitchens and give her very strong suggestions about different decisions in her life. Even if she is sometimes dissatisfied with the decisions, she does not go against her parents.

Allen

Allen is a female student majoring in TESOL at CCNU. She comes from Shijiazhuang, which is the capital city of the province of Hebei, in Eastern China. Allen is a girl that has a strong independent will to be a teacher in the future, and most or all of her decisions are based around this purpose. Her poetic character makes her able to find the romantic aspects of a city easily. She specifically says that she liked her four years of university life in Wuhan, and Wuhan itself. Allen also has strong emotional connection with her home town, and is willing to contribute to her home town. As a pre-service teacher, Allen signed a contract that asked her to work in her home town for three years after graduation. However, she is not opposed to going elsewhere after she has finished her contract.

Anna

Anna is a female student majoring in mathematics at CCNU. She is originally from a small rural village in Lyuliang, Shanxi (Central China), and has already found a job as a high school maths teacher in Xiongan New Area (a new region in Eastern China). Anna has a strong desire to go to the Eastern coastal area and does not want to go back to where she comes from. She feels lucky that has had the chance to study in Wuhan, but she does not particularly like this place and wants to leave.

Ariel

Ariel is a female student majoring in Educational Studies at CCNU. She comes from a working-class family in Luoyang, Henan (Central China). Ariel would rather go to Eastern coastal big cities than stay in Central China. She likes the good living environment and human environment there. Her destination, Hangzhou, is also a place that she felt particularly good about during a tour.

Jenny

Jenny is a female student majoring in French at CCNU, with a second degree in Marketing. She comes from Tongling, Anhui (Central China), which is a small industrial city of migrants. By the time the interview happened, she already had an offer from a French company, which offered her the chance to study in France before beginning formal work. Jenny has quite strong intentions of going further away from her home town, going to the Eastern coastal area. She seems to like places that have a certain atmosphere. Also, as a celebrity fangirl, Jenny prefers places where she can easily attend idol events.

Lew

Lew is a male student majoring in computer engineering at CCNU. He is originally from a city near Wuhan, but he has been living in Wuhan on and off. He is now an outstanding computer programmer. In order to find a bigger platform for future development, Lew decided to go to his ideal company in Hangzhou (Eastern China). Lew prefers places that have a similar lifestyle and culture to Hubei (Central China) over Northern cities like Beijing.

Rachel

Rachel is a female student majoring in preschool education at CCNU. She comes from Xiaogan, which is a prefecture-level city next to Wuhan. Rachel decided to study abroad after getting a Master's degree. She is dreaming of finding a job in the Changjiang delta in Eastern China, but not too far North or South. She has a strong intention of going somewhere else after staying in the same region all the time. However, she is quite good at taking things as they are, and she does not mind staying somewhere else.

Song

Song is a female student majoring in Law at CCNU. Song has previous migration experience of moving from Lionic province (North-East China) to Leshan, Sichuan (West China). This experience gave her the ability to adapt to different situations, and her destination choices are wider than usual. Her first choice is to do a Master's degree in Beijing, but after that Song is willing to go anywhere, depending on the job she applies for. The only three places that she doesn't want to go to are the places that she has already lived in for a long while.

Frank

Frank is a male student majoring in animation at HIFA. He is from Xianing, which is a prefecture-level city near Wuhan, Hubei (Central China). He seemed to be confused about his future plans in his interview. However, he has a basic direction in that he intends to stay in Wuhan, where he feels good and has social relationships. Since he is from a divorced

family, both his mother and father want him to go and stay with them, and are quite against Frank's plan.

Lue

Lue is a female student majoring in fashion design at HIFA. She comes from Lianyungang, Jiangsu (Eastern China), and plans to go to Shanghai after graduation. As well as her original major, Lue is also studying 3D modelling for games outside university. She prefers to go to somewhere near her home town, but also somewhere with better job opportunities, so her plan is to work in Shanghai.

Lulu

Lulu is a female student majoring in environment design at HIFA. She is a Wuhan local, and decided to stay in Wuhan after graduation. After four years of university life, she found that what she wants is a comfortable and stable life, so she decided to stay in the same place that she was born and raised, rather than going to Eastern China. She is not opposed to going to Xi'an or Nanjing, since these are the places that she has travelled to and had good impressions of.

Max

Max is a male student majoring in printmaking at HIFA. Max comes from Dongguan, Guangdong (Eastern China). Before living in Guangdong, he used to live in Shaoxing, Zhejiang with his family. He is learning video game art and intends to go to a video game company in Guangzhou, Guangdong - the capital city of the province he comes from. He has found that it is quite difficult for fine art students to find a job without a certain family background. (鲁迅)

Panda

Panda is a male student majoring in oil painting at HIFA. He comes from Huangshi, which is a prefecture-level city near Wuhan in Hubei (Central China). He has dreamed of working as a video game illustrator since he was a primary school student, but he wrongly trusted his art tutor and applied to the oil painting major. He interned at a branch of a famous game company in Guangzhou, Guangdong, but finally chose the branch in Hangzhou.

Sue

Sue is a male student majoring in watercolour at HIFA. He is a Wuhan local. Since he was young, he has dreamed of studying video game art or animation in Japan, but due to various reasons he compromised and took the CEE, applying for a university in China that has a collaboration project with foreign countries. However, his mother changed his application form without his agreement. Sue has now decided to do a Master's degree at HIFA, and aim for an exchange in a foreign country. He doesn't want to compromise his life for his parents anymore. He has been around almost all of China during his four university years. After graduating, Sue plans to be an art university lecturer in a relatively small city in Eastern China that is comfortable to live in.

White

White is a female student majoring in fashion design at HIFA. She originally comes from a rural area in Shantou, Guangdong (Eastern China). White has a family working in the clothes making industry. She came to HIFA with a very high score in the CEE art test and university test, as a top student in the fashion design department at HIFA in 2015, but the real situation of fashion design education and the clothes making industry disappointed her. She changed her plan and intends to explore the game art field. As for geographical destination, White wants to go back to Guangdong where the game industry is well developed and she has social relationships.

Zhuorya

Zhuorya is a male student majoring in mural painting and comprehensive materials at HIFA. He comes from Dongxing, Guangxi, a county-level city in Western China. The place where Zhuorya originally lived is a backward border town, which makes him prefer to go to Shenzhen, Guangdong (Eastern China) after he graduates. His family also supports him to go further outward. The university location is like a springboard to him.

Eutyclus

Eutyclus is a male student majoring in Information Engineering at WUT. He comes from Kuerle, Xinjiang (Western China). He intends to do a Master's in Electronic System Design in the UK and apply for a job in HUAWEI after graduation. He prefers to go to Suzhou, a semi-first tier city in Eastern China. He feels good about that region, used to stay there with his girlfriend, and the lifestyle and salary level of Suzhou city meets his requirements.

Zoe

Zoe is a female student majoring in Material Science and Engineering at WUT. She comes from a multi-cultural family, in that her mother is from Wuhan, her father comes from Qinhuangdao (in Hebei province, Eastern China), but her family lives in a small backward migrant city in Ningia (Western China). She mainly received her culture from Wuhan and has been staying in Wuhan for high school and university for 7 years, thus she sees Wuhan as her 'second home town'. She decided to do a Master's degree in Shanghai, and after graduation she prefers either going to the East or staying in Wuhan, but never back to her home town.

Gus

Gus is a male student majoring in Information Engineering at WUT. He comes from Tianjin, and plans to go further south in China. The reason he came to Wuhan was partly because of his CEE scores, partly because he has been staying in his home town for too long, and expected to experience something new. This is also the reason why he wants to go further South.

Jaimee

Jaimee is a female student majoring in Media and Advertising at WUT. Jaimee has experienced migration from small town to big city before, and experienced the contrast between metropolises and small towns. After graduation, she planned to go back home to take care of her mother, but after that she found a job in Beijing, and since Beijing is also near her home town, she changed her plan and went to Beijing instead.

Sam

Sam is a male student majoring in Mechanical and Electrical Engineering at WUT. He is a stayer in Wuhan, which means he is originally from Wuhan and decided to stay in Wuhan after graduation. He likes the feeling that most of his social relationships are in Wuhan. At the same time, he is not satisfied with the working environment that counterparts with his major, and decided to find a job with a more comfortable working experience.

Tom

Tom is a male student majoring in Mechanical and Electrical Engineering at WUT. Tom had been staying in his home town (Linfen, Shanxi, Central China) before he went to university. Due to the imbalanced development of industry, Tom decided to go to a more developed region after graduation, in Shanghai, or further South.

Kenneth

Kenneth is a male student majoring in Law at WUT. Kenneth comes from Hangzhou, Zhejiang, which is a relatively developed city in Eastern China. The reason he came to university in Wuhan was because of the quality of university in Wuhan. After graduation, he decided to go back to Hangzhou. Kenneth thinks his career as a lawyer will rely on his social relationships, and so going home will be the best choice.

Appendix 2 Example of Interview transcript

Interview transcript 06-04-2019

Name: Jenny

Age: 21

Gender: Female

Social Class: Middle Class

Original domicile: Tongling Anhui/Rural Hukou

Discipline: CCNU/French

Researcher: Let me introduce myself first. I'm in the second year of my PhD in the school of education at the University of Glasgow. The topic is about higher education, with some economics, geography, and demographic elements, because I study population mobility related to higher education. The project I'm doing is related to where the graduates go and

the brain drain in Central China - I actually came up with this project while I was taking a shower.

Jenny: I've thought about that before. Why don't people stay in Wuhan?

Researcher: Yeah, a lot of people think about that.

Jenny: Yesterday I read on the news that Shanghai has replaced Beijing as the top destination for graduates.

Researcher: Shanghai's housing prices may have persuaded some of them to give up.
(laughter)

Jenny: Haha, I guess they'll be gone after a few years.

Researcher: Maybe you could also introduce yourself, Jenny!

Jenny: My name is Jenny, and I'm a 2015 entry undergraduate major in French at CCNU. I'm doing a double degree in marketing in Wuhan university, and now I am in the middle of writing my dissertation. I intended to do jobs related to my second degree, and I just wanted to go to France to Grandes Ecoles (a type of business uni), and then after I took the GMAT for the second time, a French company came to our school for recruitment. They did a speech in our class, so I handed in my CV without thinking. Then I said to my parents after I handed in my resume, if I pass I'll go, or I'll continue to take the exam. But I passed in the end! It had four rounds of interviews, and it took me a month, and in the middle of the interviews I said I still have a GMAT test to prepare for, so I decided to say if I get through the third round I'm going to concentrate on the interview, and give up on the test. Then the third round I also passed, finally all passed, so I did not take the GMAT. This company also provides opportunities to study abroad, and then professional management is about the same. The main reason is that there are many categories under this company, from catering to

entertainment, like exhibitions, activities, and enterprise cooperation. Well, I think even if I can't leave for three years (due to the contract with the company), I can try a lot and I won't regret it.

Researcher: It's good, it's reliable, and it's also in your plan!

Jenny: Besides, the city I work in is also a first-tier or second-tier city, even third-tier cities would be some more developed cities like Changchun and Ningbo. Then they hired 12 people in the whole country, and I found that their level was ok after I got to know them. They hired 2 people in Wuhan, 3 in Shanghai, 2 in Beijing, and 3 in Guangzhou, which were recruited in these areas. And then I looked at their universities, 3 of them are 985, 4 of them are 211, eh? Is that wrong? Let's just say my uni is average level.

Researcher: That's great!

Jenny: No, I'm just better at interviews. Well! I liked to learn French before, but I wasn't good at learning it. That's why I felt I must learn something else to increase my self-confidence. I wanted to study psychology before, but my parents told me that it was not easy to combine this major with French, or I should study economics. But I really didn't want to study economics.

Researcher: And after that?

Jenny: Yes... Very strange, I wanted to learn international trade originally, but discovered it was full at the point when I tried to apply, so I went for marketing. After I applied, my father said to me: "Don't come to me if you have regrets afterwards! You have to learn maths from now on!"

Researcher: (laughter)

Jenny: And then when I did, my roommate accompanied me to my first class, and she came back after the first class. (laughter) I listened and thought, "WOW, that's interesting!" Then I kept on with it! Because a lot of people say that the double degree will not be easy, because you have to spend your weekend going to class, and then it will be a month in advance - just before the final exam of our own major- the final exam. It's like the final exam for us lasts for two months, we were more stressed and tired than other people who only have one month of final exams because they're only doing one degree. But I think it is more interesting to me, I think it is ok.

Researcher: It's good to find a hobby major. I wasn't particularly interested in this major at the beginning actually.

Jenny: How can you do a PhD in education then?

Researcher: Well, basically because I'm good at it. I'm not particularly interested in anything.

Jenny: Yeah, I think a lot of people choose what they do well. I'm the same. I was doing it well so I kept on with it.

Researcher: Yeah, I think it looks a lot like you're good at being social, that's very good!

Jenny: But you know, in my class, I felt that I couldn't stand others' indifference. Like my roommate might stay in for a day and never talk, and then I can't stand it.

Researcher: You might think they dislike you?

Jenny: No, she has a problem with everyone. [laughs]

Researcher: (laughter) So now that you are working, you go to France directly, and do not need a gap year or something in between?

Jenny: Yeah, it's all set. If you default, you'll have to pay 100,000 yuan.

Researcher: Are they providing you with tuition and living expenses?

Jenny: Tuition will be provided, and living expenses will be subsidised. Euro 300? Like this.

And then they offer internships because they're based in France.

Researcher: That's a big step, isn't it?

Jenny: Well, there's just one kind of... If you want to do something else...

Researcher: So, you need to think carefully.

Jenny: I don't think I'll regret it.

Researcher: You know exactly what you want. We were just talking about where you used to live. You used to live in Tongling, Anhui province. What kind of city is Tongling in Anhui?

Jenny: It's a city of immigrants. It used to be the smallest prefecture-level city in China, but after Zhoushan came out in Zhejiang, we were the second smallest. (laughter) It's still very small. But it's an industrial city, which used to be all immigrants. At the beginning there was a company called Tongling Nonferrous Metals Company, and then there were the people who came to work there, then they brought their relatives there. After starting in the metal industry, they developed into the construction industry, and began to build houses, and then began the development of a variety of other things. It is a city of immigrants, there are basically no Tongling locals. Our home is also nearby, just over Wuhu.

Researcher: Did you move there when you were a child?

Jenny: No, my grandfather was in Wuhu at the time, and then my father was already in Tongling.

Researcher: So, you were born in Tongling, grew up in Tongling and came here to study in college? Is this your first trip out of town?

Jenny: Yes!

Researcher: So, what was your motivation to study in Wuhan?

Jenny: I didn't choose Wuhan. I chose Shanghai, but... It's a coincidence... The first one I applied for was the East-China Normal University, and then CCNU, but I don't want to be a teacher, I don't know why all the application forms I filled in were Normal Universities (laugh). What else... East-China University of Politics and Law, then Shanghai University, that's all. Only one of them is located in Wuhan, but I passed my second or third application as I remember. So here I am.

Researcher: So, what was your ideal place to start with, to go to Shanghai?

Jenny: Yeah.

Researcher: So why did you want to go to Shanghai at that time?

Jenny: First of all, Shanghai is closer to my home. That's it - if you take the high-speed train it will just take around two hours. Also, I have been to Shanghai before and had a good impression of that city. Then I felt that many people around me wanted to go there, so they said they would either go to Shanghai or Nanjing, which was basically... Well, since Anhui is central, but central is close to East or South, we usually want to go a little bit further outside, like Zhejiang, Jiangsu and Shanghai etc.

Researcher: The Yangtze river delta, the Pearl river delta?

Jenny: Yes! ... but fewer people go to the Pearl river delta, I felt that the climate there is too wet, so I wanted to go to the East, that's it.

Researcher: So, you were sadly enrolled in a university in Wuhan (laughs). You have lived in Wuhan for four years, and what is your impression of this city? What is your experience of studying here for four years?

Jenny: I think the good thing is that there are so many universities here. The good thing is that I have a chance to meet people from other unis. Then you can meet someone with similar interests. The job opportunities are also ok, although not as much as Shanghai and Beijing, but there will be branches of good companies located here. The bad part is... It feels like this city has no character. It's just traffic - it's always building roads, and when you go out, you don't feel happy, and the weather isn't so good either. And then there's... hmm... I feel my major is too biased towards liberal arts, too feminine, that is... The kind that lacks diversity...

Researcher: Could you identify this a little bit more?

Jenny: That means - there are 28 women out of 32 in our major.

Researcher: Only 4 guys? Why?

Jenny: Just that there are more girls learning languages.

Researcher: Large number of female students, huh.

Jenny: But there are about 330 students in the whole grade in the school of foreign languages. There are only 30 guys, one tenth...

Researcher: What do you think might be causing this?

Jenny: Well, first of all, there are more girls than boys in CCNU.

Researcher: Is it true that there is a big difference in discipline choice when they were in high school at the very beginning?

Jenny: Yeah, we're all liberal arts students. At the beginning liberal arts students have more girls, and then learn languages - like CCNU, in fact, it only requires liberal art students.

Researcher: Does it require that?

Jenny: That's right. Actually I feel that perhaps general science students' English is kinda ok as well, but our major only wants liberal arts. There was a required English score in the college entrance exam, and they only accepted those with more than 125 points. The requirements are written in brackets (on the requirement sheet). And then I think guys who... just good at maths... after all this time it was clear that they were... are... it seems that their language learning is worse than girls. Seems to be. Our class is the same. So girls study harder than guys.

Researcher: I think that only recruiting liberal arts students sets up a gender barrier already, because from the very beginning, it is believed that women should study liberal arts and men should study general science. Though it doesn't make any difference in the way your brain works in terms of your gender actually.

Jenny: In our uni, the psychology department doesn't allow liberal arts students to apply. I wanted to because I had good enough grades. But I couldn't apply since I'm a liberal arts student.

Researcher: Why?

Jenny: My classmate, who was in my high school class, studied psychology at Southwest University, and there were no discipline barriers in psychology. But she did think that science students would find it easier studying psychology than her. But her grades seem to be ok. She was recommended for postgraduate study. I just don't think it's that big of a problem, there shouldn't be a discipline barrier when choosing a major.

Researcher: Originally, the goal of splitting students into liberal arts and general science was to reduce the burden on students, but it seems to be unsuccessful.

Jenny: No. It has even given us a few obstacles, more and more obstacles.

Researcher: Yeah, that's right... Ah, by the way, where are you going to work when you come back from France?

Jenny: It depends on performance. Where you will be based is decided by your will and performance.

Researcher: You said that most of them are developed cities in the Eastern region, right?

Jenny: That's right.

Researcher: Have you considered second or third-tier cities?

Jenny: Yes, Nanjing and Suzhou.

Researcher: How about the Central region and Western region, apart from this one?

Jenny: No, because I think there's a lot of opportunities out there in Eastern China. I've got three or four location choices for now, so there's no need to think about other places.

Researcher: Do you dislike Central and Western China?

Jenny: First of all, I'm the only child in my family. They don't let me go too far. And I'm a girl. And I like the climate in the East. I think it's not necessary to go too far. And there are more companies in the Eastern region, most of these companies don't even have a headquarters in Wuhan. When I worked as an intern in Wuhan, I felt that the treatment and training were quite different from those in Shanghai and Beijing.

Researcher: Was it a big difference?

Jenny: I was in the Unilever internship, and then I also interviewed at Shanghai Baosteel (a company), I then had the chance to go to the headquarters - which still makes me feel regret that I didn't go. I just wanted to stay in Wuhan - because I had a summer school in between - then at that time, Unilever also asked me to stay in Wuhan to do an internship. I feel these companies never ask regular staff to teach you, the people who taught me were from outsourcing, or store administrators, who run the business. And the intern just ran with them, doing things like tidying products in stores, and then recognising their products, very basic. I can figure that out at home without coming here. Then, like the line leader who taught me, he thought it was not interesting to teach me. I was there again for three or four hours, and I asked him: "Is there anything I can do?" "He said: "Nothing, you help me to fill out this form, calculate it." "Actually," he said, "I am not unwilling to teach you, but you will also leave, will you stay? You won't feel very good about the salary here." I couldn't say anything. I worked for more than a month and then I left, and it was kind of a waste of time.

Researcher: Yeah, maybe it's also related to the company?

Jenny: But P&G is ok. My classmates at P&G are very well trained.

Researcher: Where is P&G?

Jenny: It's also in Wuhan. My classmate when I was doing my second degree, she was different from me, I just happened to study this major, but she wanted to do this since she was a freshman, and then she also planned her major and work. She's the best I've ever seen. Later I said, she can plan four or five years in the first year of the uni! She began to prepare for P&G two years in advance. In order to enter P&G, she has been working for this company from her academic degree, internship, campus experience and student organisation. Procter & Gamble only recruited 7 interns nationwide, and she was there. Then she became a full

time employee as soon as she finished her internship in the summer. Her salary is now 12,000 yuan a month, only a bachelor degree!

Researcher: It's really amazing, a person who has goals and dreams.

Jenny: She's amazing!

Researcher: Yeah! Did she stay in Wuhan later? Where does she come from?

Jenny: Also Anhui! It's a coincidence.

Researcher: Well! Then... Talk about you, in making this decision, because a lot of people when they choose a location they have different strategies. Generally speaking, most of the time we have a wider range to meet some of our needs, for example to satisfy "economy", like income level, and then for example family, near and far away from home, and then we choose a smaller range of places. Did you use the same or different strategies when you made the decision after graduation?

Jenny: The larger range is based on one thing. Being closer to home. Then I'll look at the development opportunities. I see if the company is centred there, and if I can get better development after working there for a long time. That is, I don't think I would choose it if it was a place with high pay, but you only do one thing over and over again, or you don't make progress for a long time.

Researcher: What does "making progress" mean?

Jenny: For example, starting doing operations, you've become very skilled for two or three years, this time should give you a level you can then go up to, if I can't see this opportunity, I don't want to do it. Not to say that I have to do more advanced things, but if I don't think I can see the rising space - for example in the Mid-West you might just be operating, just basic

jobs. You can be a good operator or a bad operator, but you can't be a regional manager. Just, this thing is more important to me.

Researcher: The prospect of development is important to you, is it?

Jenny: That's right.

Researcher: In addition to this, have you considered the natural environment, cultural environment, social environment, public facilities?

Jenny: Yes, that's right. I really like the atmosphere of a city like this. It has two sides. For example, I think Nanjing has a section that was built in the Republic of China period. When you go there for fun - I often go to Nanjing because my relatives are there - then you want to experience the historical atmosphere of the Republic of China period. If you want to sit in a cafe slowly, you should go to the district where Nanjing University is located. You can experience both - you can adjust yourself to your state. I don't like always being fast or always being slow. I used to think that Shanghai was great, but then I thought - I don't know, because I didn't live there - that if I could find that, you know, how to say, give myself space to adjust, to find that area, then I would be satisfied with the city.

Researcher: Then Suzhou and Hangzhou might be good!

Jenny: Yes, I prefer Suzhou, Hangzhou and Nanjing.

Researcher: They are both cultural, but also business centres. I haven't thought about that in particular.

Jenny: You can watch TV shows! (laughter) I just looked at TV shows and I was thinking, "This place looks great!"

Researcher: (laughter) So let's move on, let's see... As far as your friends are concerned, where do your friends, people you know, students of the same or different majors go when they graduate?

Jenny: Beijing, Shanghai, Guangzhou.

Researcher: Those famous cities (laughs).

Jenny: Yes! Then, because CCNU is in Wuhan and there are many local students, they will stay in Wuhan too. One of my classmates from Anhui also chose to stay in Wuhan. He wanted to go to Beijing, Shanghai and Guangzhou before, but he thought his boss was very nice and could teach him. He said that he wanted to learn more and accumulate experience in these years, so he stayed in Wuhan. Then my other classmates, some of them are planning to do postgraduate study. They go where their university is located.

Researcher: Did they reveal where they want to live after graduation?

Jenny: I think they must be working where their university is located. Otherwise they won't spend another three years in a strange place.

Researcher: Yeah!

Jenny: But one of my classmates is really weird. He went to Tsinghua University, but he wants to go back to Tongling.

Researcher: What??

Jenny: He got his undergraduate degree from Beijing Normal University. Then he went to Tsinghua university on his own. Then I asked, "You want to go back to Tongling?" He said that study does not matter, he wants to go to Tsinghua to improve his education level and so on, but he doesn't like working in big cities, he wants to return to the small city. Because life is slow in Tongling, he said he would go to a cultural bureau.

Researcher: He has set up a training institute to work as a public servant, seems quite promising.

Jenny: Well, there are a lot of civil servants around me. Another one is from Hubei University. He was my high school classmate. He does not dislike it, being a civil servant was a double choice by both him and his parents, and now it seems that he will take the civil service exam in April again. Then my elder sister is also taking an examination for civil servants, many students are taking an exam to be civil servants.

Researcher: What's so good about being a civil servant?

Jenny: I think it depends on personality. Some people do not like competition, do not like pressure, like stability.

Researcher: It turns out that people, after all, have different values.

Jenny: Well, true.

Researcher: According to what we just talked about, do you see any gender differences in this trend for students who go to Beijing, Shanghai and Guangzhou? Well, I know female students are the majority in your school, but have you found any differences in male and female student graduation destinations?

Jenny: Let me see... There is one big difference. I find that boys seem to see the city as not so important, it seems that where they go is not so important, but girls will put the city choice in the first and second place, see the city first and then see whether the city has what I need.

Researcher: Why do you think that is?

Jenny: I think guys want to build up their strength in the subsequent few years. Since that place wants me, it proves that I am valuable. Don't guys like the feeling that they are valuable? (laughter) I think it's true, my good friends all feel that way, that they are the first

to widely send resumes, and then if somewhere wants them, and the working conditions and salary are decent, they decide to go. Like...Sichuan, Hainan, stay there. Well, he was from Hainan University. Hmm... Then... The main reason is that there aren't many students that are looking for jobs right now in our class. One of them is going to Shenzhen, originally from Wuhan, wanted to look for a job in Wuhan, but there was a company in Shenzhen that asked for him, so he went there, that is, "I will go wherever I am needed". Because they had already made a match with the place when they sent in their resume, and since they had already sent in their resume, they had already been screened in the first batch. Then there is nothing.

Researcher: Is this a gender stereotype? Like an only child who is a girl has to go home?

Jenny: Actually, I don't think so. That's what they (parents) say. But they respect you, mainly because the place I'd go is close to home coincidentally. But even if my home wasn't there, and I liked somewhere else, I would definitely go anyway.

Researcher: So, your parents opinion is just a reference? You won't do exactly what they want.

Jenny: Well! Just let them feel like you listened to them, you know.

Researcher: So, in addition to the gender difference that we talked about, there is also a social class difference. That is, for example, if you know someone from a good family, and someone from a poor family, will they have differences in their choice of region?

Jenny: I feel like many students from good families have gone abroad. I know a girl in Beijing. She and I were both online friends before we met recently. That is, she belongs to the economic field of her family members, her parents are both from investment companies, and she is also learning accounting, which means that she can find a good job after graduation. But she will choose to go abroad, and she must be in a reliable kind of school. I

asked her why, and she said, "Because people in our community need to have that background."

Researcher: Parents accumulate social relations and social capital for their kids, so that they can enter the field directly after graduation. It is impossible for outsiders to open the gateway.

Jenny: That's right. She thinks everyone around her has gone abroad. She has to go abroad to be at the same level as everyone else around her. Then there are those who have worked for two or three years, and although the job is good enough, they'll still choose to go abroad. There must be an experience, they think they have to broaden their horizons, and there must be an overseas experience - they think it is necessary. However, if you are from a poor family, you may want to work sooner, or you can take the postgraduate entrance examination. I think the postgraduate entrance examination has nothing to do with your family's wealth, it just depends on your own ideas.

Researcher: Where do those students from poor families go?

Jenny: Work?

Researcher: Yes.

Jenny: I feel like they've all gone home. Hmm... Some of them went home, or something like that... Nearby? Won't be too far. If their family situation is a little worse, their family values will be very heavy. They will feel that it is their duty and burden to take care of their family. They'll care more about that. They don't really care about whether they can achieve their dream or not. They look at the salary of the job, the financial situation and whether they can take care of their family. I think they'll value this more. But students from good families certainly do not need to take responsibility for their own family, the only thing they need to care about is meeting their wishes. But the poor students they're sure - and now that they're

all about to graduate from college, they're going to have a sense of responsibility, and then they're going to put that on the front burner.

Researcher: I think it is very reasonable! Speaking of social class, there is another difference between disciplines. As for the arts and sciences we just mentioned, will another bunch of people go to a certain place?

Jenny: Uh... I know students from computer science tend to go to Beijing, I feel like artificial intelligence and things like that will be more developed there. Then there are a lot of universities, such as Beijing Institute of Technology and Beijing University of Aeronautics and Astronautics. The acceptance of high-tech talent there is relatively high. Then if you study business, you will feel there are more choices, and if you study real estate, you will tend to go to Guangzhou and Shenzhen more. There are more real estate things there. Hmm... They just do a lot of real estate there.

Researcher: Do Guangzhou, Shenzhen have bigger markets for real estate? I always thought it was expensive enough, are they still building houses?

Jenny: Well, yeah! I'll probably... I know three or four. They all went over there! They all had their job interview in Wuhan, and now they are all working there. And I feel it may be the demand from that place, because they did not want to go there at the beginning, but just sent their CVs to the company over there, and finally the company over there wanted them, so it may indicate that the demand over there is higher. Then... Liberal arts. Liberal arts are all about a better university, that is, if studying psychology they must see the university ranking, if learning a foreign language it is definitely Beijing Foreign Studies University and Shanghai International Studies University, it depends on the university, the region itself doesn't matter that much.

Researcher: It is also important to rate the number and quality of a city's Higher Education Institutions, which also counts (laughs). Then it is about the preferential policies for graduates in the Central region. Do you know anything about this?

Jenny: I know a little bit about Wuhan. Preferential settlement? Or something... How much are they offering? I didn't look at the details, but I knew there was a discount.

Researcher: You know a little bit about it, anyway.

Jenny: Yes!

Researcher: Did they help you? During your job search?

Jenny: I know one. It's about a fortune 500 company. It is related to graduates or something... in Shanghai it can also give priority to settling down. I wanted to go to HEC at that time, it turned out that the uni I was intending to go to can also give priority for students to settle down in that city. Yeah, I've looked at that. But... I didn't want to settle down in Wuhan. Why do I know this?! (smile)

Researcher: (laughter) Does this affect your geographical selection? The policies?

Jenny: Actually, it doesn't really matter that much. I just wanted to look at it because I want to go there. Policies didn't drive me there.

Researcher: So it basically means you had a wee look at policies and would be happy if they help, but you won't mind if they don't.

Jenny: Yes!

Researcher: So, do they affect your friends? Have people you know mentioned the policies?

Jenny: No, they haven't.

Researcher: Are there pre-service teachers in your school?

Jenny: Yes, from the English department. I know quite a few of them.

Researcher: Do pre-service teachers pay more attention to this aspect?

Jenny: Don't all the pre-service teachers go back to their hometown? But I see a lot of waivers now. It's... Either default or I feel like... When I was a freshman, they thought it was good to be a teacher. Later, they felt that they had to go to a different place.

Researcher: Let's see... Have you talked about your job hunting process? Did your parents help you in your job hunting process? Or did you find it yourself?

Jenny: When I was an intern... In my Junior year I looked for a summer internship, and at the beginning it didn't go well, no company wanted me, so I called my parents, they said "if you cannot find any, we'll find you one." That's fine. Then I said if I couldn't find any on the last day before the holiday, then I would go back. Anyway, don't make me an appointment during this period, I won't be able to go back then, I said to them. Then, after April and May, I found two places that were ok, so I went there. But I can always go back and do the internship my parents recommend for me.

Researcher: Did your parents help you in your job search?

Jenny: Yes, because lots of my relatives are businessmen. THigher Education Institutionr ideas will help. My aunt in particular, my aunt is kind of in charge of her own kind, she's not very good in her own career, but I think she has very good ideas. When I asked for her advice before job interviews, I asked her what I should answer if the interviewer asks me what I think about the company and the industry, and she told me a lot. And I also have relatives doing... Securities, and then, although the relationship is not close - just a distant relative - but asking questions still helps.

Researcher: You might still have a few relatives who work in a related field, to aid you in your search for a job.

Jenny: I'm one of those people who calls everywhere when there's a problem - I think first, but I call whether I can sort them out or not!

Researcher: Well! Very good, this is the expression of social capital! In fact, the question is whether it is influenced by the capital of parents and social connections, and then there is human capital, which is related to your own knowledge and ability, and personal traits.

Jenny: Yeah, I remember when my mom said that there was a young girl who newly came to her company, and she was working in Hangzhou, and she said, "My daughter wants to go there too" and she added her WeChat. And I had an interview that day, and I wanted to ask her, and my mom gave me her WeChat number, and we talked for a while. And then there was a relative, and I didn't talk much, so I said I wanted to ask her too, and I called her for over an hour. Then... I just felt like that phone call was really important. If he hadn't told me at the time - because then - now companies like to ask the question, "Do you have any questions for me?" (laughter) Yeah, that's a question that I used to think that you could simply say "No". And I was like, "Thankfully I asked!" At that time, my relative, my cousin told me, "You need to think of three questions, you go to their company's website, and then ask them your own questions that you prepared, to make them think you know a lot about their company." Then I did a lot of work on this part. And finally the interviewer said, "I think you're a good thinker." (laughter) And he said, "How did you even come up with that?" It's all prepared in advance. (laughter) Then I felt secretly pleased. Thankfully I asked, well, I wasn't familiar at the beginning, my mother even said things like "Don't ask any questions". But I think it is always helpful if I ask!

Researcher: The more information you can obtain, the better, indeed, especially in the employment process.

Jenny: Yes!

Researcher: So, did you get help from the university's career centre?

Jenny: No.

Researcher: So, where does it come from?

Jenny: It came straight to our class.

Researcher: Oh! One more personal question, do you have a boyfriend?

Jenny: No! Never had!! (laughter) Even if I have one his ideas won't influence my location choice! No, it's probably because I don't have a boyfriend yet! (laughter) Oh! I told you that I had a boyfriend when I was a freshman. I said I was going abroad, and then he said, "What will I do if you go abroad?" I thought, "What's that got to do with me?" And then I felt really good about breaking up with him. Then I didn't meet the right one. I think now boys always think that I am too high-minded. It doesn't mean that I am too demanding, but that you are a girl, why do you want to go to a big city? I think a lot of them think that.

Researcher: Is that sexual discrimination?

Jenny: Yeah, a LOT. 60 or 70 percent of people are like, "Why would you want to go into an enterprise as a French major? You could be a teacher!", "Why aren't you a teacher?"

Researcher: ??? Why be a teacher?

Jenny: That's weird! It's a question everyone will ask me! Even when I was doing my second degree, there were a few boys, we were in the same competition team before, they said: "Do you watch too many TV shows, always feel that the executive is very handsome and dream

about being an executive?" I said, "You're so sexist." And I have a friend who has a really weird idea.

Researcher: A guy?

Jenny: Yeah, a boy, from WUT, and now he went to Beihang University. Wow, what the hell was his idea? He said, "What kind of boyfriend are you looking for?" I said: "Find a guy with slightly better abilities than me, or at the same level." And then, anyway, that's about it. Then he said, "Why is it about the same or better, not about the same or lower?" I said: "People have a pursuit of an upward trend!". "Then why should we boys accept anything less than ourselves?" he said. Then I said: "Well you find someone that's better than you as well, fair enough." Then he said, "But you girls are asking us to take care of you!" I said, "Isn't it care for each other? You request a girl to have a child for you. Girls request a little care from you, isn't it also normal?" "Then I'll give her love and care, it shouldn't be measured financially!" he said. I said: "You can't even guarantee the family financially, how can you take care of the family in life!" And then I found that the gap between us is really too big.

Researcher: That's also true for some senior ladies. "It's useless to study, just come home and have kids."

Jenny: And marketing reminds people of sales. And then my dad once told my grandparents that I was going to sell something, and my grandparents got so angry - (laughter) - "How dare you withdraw from university and go to be a salesperson?" My grandfather was so angry at that time! That's funny!

Researcher: (laughter) We've been talking for an hour, what would you like to add, Jenny?

Jenny: Another factor is that I'm star-struck.

Researcher: Yeah! Who are you chasing?

Jenny: Jiaer Wang! You know there is no way to chase stars in Wuhan.

Researcher: It's true that there are more exhibitions and events in Beijing, Shanghai and Guangzhou.

Jenny: That just fuels my desire to be there!

Researcher: I think that could be put into cultural environment.

Jenny: And every girl around me has dreams! We must raise idols! That's why they are very passionate about working every day, they're too motivated, once they see their idols, they can keep this motivation for longer (laugh)!

Researcher: I have never liked a star to be honest.

Jenny: I didn't do that before. I think chasing stars is kind of, just because when I was in my third year, I had to go abroad for my internship and minor, and I failed the exam, so I was under great pressure. When I wanted to relax, I saw some of his variety shows, which were quite funny. But it's impossible to chase stars just because they are funny. I don't do that! I see strength. (laughs) After watching him for a few weeks, you may get to know him, and then you will see what he does and what he experiences, and then you will find out that he can sing and dance very well, and he was an athlete before, and he won an international award, and he is the Asian champion, and then you will feel... Pretty good (laughs), and then I started paying attention to him.

Researcher: Ok, I've seen many people tend to go to Shanghai because there are more exhibitions and concerts.

Jenny: They have a lot of cultural diversity. Even if you don't follow the stars, you can also look at things that will improve your cultural level and aesthetic. A lot of people go to plays,

go to art exhibitions, a lot of people who study French like to go to exhibitions. I don't like to go to exhibitions, but they want to go there when they want to go to exhibitions. These things are rare in Wuhan. There was the French month, an exhibition for a few weeks. I went to see it, I didn't understand it, I wasn't very talented at it, and they liked it. And then... I feel that as a girl chasing stars, I should go to those places to see idols. A friend of mine went to see a concert in Beijing, and I thought it's time to do something instead of staying in Wuhan forever. I haven't travelled for four years. I suddenly wanted to go out to play. Then I went to Beijing and felt the world was different. Yes, that girl in Beijing, I also met on the internet. I felt that the level was very high and the people were very enthusiastic. I loved playing with her very much. Then I went to Thailand for another concert by my idol. But that was the first time I followed a star. I don't think I can ignore my own feelings because of my idol. I only followed stars that time, and then went to Thailand without hanging around. Then I went to Beijing alone, feeling free, so I arranged two days to play and one day to watch a concert. When I came back, it was very good. Before that, I only went for two days, watched two days of concerts, and then I was half dead by that time! I slept for ten hours in four days! Came back and fainted all day. At that time I just didn't understand.

Researcher: Time is almost up, thank you for participating in the interview today!

Appendix 3 Questionnaire

中部地区区域间人才流动问卷调查

Plain Language Statement 简单来说!

简单来说, 我所要参加的这个是什么?

- **研究课题和研究者相关信息**

Graduates on the move – regional migration of graduates in Central China

流动中的毕业生 – 区域间的毕业生人才流动（中国中部地区）

英国格拉斯哥大学，社会科学下属教育学院

Jingjie Zhang

导师： Dr. Kristinn Hermannsson, Dr. Lesley Doyle

博士学位研究课题

很荣幸邀请你来参加这个重要的研究。在你决定之前，了解这个研究究竟是个什么东西，为什么要做这个研究，以及这个研究会怎样进行是非常重要的。请花一点点时间仔细阅读一下下面的信息，或者如可以和其他人讨论一下！如果你不太清楚某些内容，请随时联络我们。

- **这个研究的目的是什么？**

这个研究旨在了解中国中部地区高校毕业生毕业后流动去其他地区的倾向问题。从不同角度研究这个流动倾向，我们就有希望分析出哪些因素影响了中部地区的毕业生去向，了解他们为什么会去这些地区，为了解中国的高级技术人才动向，帮助改善一些缓解地区发展不平衡的政策，作出贡献。

- **为什么选择我参加？**

因为你是中部地区的大四学生。

- **我是必须要参加吗？**

不是哦，参加这个研究项目是自主自愿的，也就是你可以在看完这些信息后自由决定是否参加这个研究项目。你也可以在研究中随时决定退出项目，不需要告知我原因。

- **如果我参加这个项目会发生什么？**

这个研究项目会被分成三个部分

这是一个问卷调查阶段，问卷会包括一些关于流动趋势的简单的问题。参与者会被询问是否愿意参加后续的调研（第二第三阶段和后续研究），这份问卷大约只需要 10-20 分钟来填写。问卷的参与者将有机会获得 10-50 人民币的礼物！（书卡，画集，等等。）

第二阶段： 如果我们在后续联络你参加这个阶段的话，这会是一个面对面（或者网上）访谈的阶段。这个阶段参与者可以自由谈论自己（未来的）流动的目的地和选择原因，关于毕业生流动的理解和观点，等等。参与者可以自由决定是否参加第三阶段的跟踪调查。这个阶段大约需要 45 分钟。这个阶段的参与者，将会直接获得 50-100 元人民币或等值礼物。

第三阶段： 这个阶段会发生在第二阶段的一年后，参与者会被要求重新审视自己的流动选择，以及后续的体验。这个阶段大约需要 30 分钟。这个阶段的参与者，将会直接获得 50-100 元人民币或等值礼物。

- **参加这个研究项目是保密的吗？**

是的，所有在这次先导研究中收集到的个人信息将会全部被销毁。

但是这个保密协议服从于法律和规章的要求。

- **我研究中被采集的个人信息会怎么样？**

你的个人资料会被扫描并以电子形式和研究数据分开储存。这些信息将被储存在加密电脑硬盘上。任何和个人信息相关的纸质内容都会被销毁（除了书面同意书），销毁时间是本研究的结束日期 2022 年 1 月 7 日。电子版个人信息将会在后续研究完成后被销毁。

- **这次先导研究的数据会怎么样？**

这个研究项目的研究数据会被保存在一台加密的电脑上，并且存储数据的硬盘会在研究截止日期（2022 年 1 月 7 日）的十年后被格式化销毁。研究结果在博士论文完成的一年后公开发表。如果你需要一份公开发表的研究结果，你可以留下你的联系方式，然后我会给你用邮箱发一份副本/论文。

请注意你不会对任何公开发表的文章中被人辨认出。

- **谁组织并且资助了这项研究？**

这项研究受到国家留学基金委（CSC）和格拉斯哥大学（University of Glasgow）的资助

- **谁审核并批准了这项研究？**

这个研究课题通过了社会科学伦理委员会的审批。

- **联络方式**

Jingjie Zhang

Room 574, St. Andrew's Building, Glasgow

School of Education

University of Glasgow

G3 6NH

j.zhang.4@research.gla.ac.uk

如果对本项研究有顾虑或投诉，请联络格拉斯哥大学社会科学学院伦理委员会办公室 **Dr Muir Houston**, 邮箱 Muir.Houston@glasgow.ac.uk

Consent

Title of Project: Graduates on the move – regional migration of graduates in Central China

研究课题：流动中的毕业生 – 区域间的毕业生人才流动（中国中部地区）

Name of Researcher: Jingjie Zhang

研究员姓名：张婧杰

1. I confirm that I have read and understand the Plain Language Statement for the above study and have had the opportunity to ask questions. 我确定我已经仔细阅读了关于上述研究的“简单来说”文件，并且有机会询问研究者相关问题

2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason. 我理解参与这个研究项目是完全自愿的，我可以在任何时候退出研究，不需要提供任何理由

3. I give my permission for my personal data and contact details I give in the survey to be retained for: 1) Participation in a raffle and Stage 2 (interview) of the research; 2) Participation in a raffle and Stage 3 (interview) of the research; 3) Participation in further research (interview) 我明白我可以自愿留下联系方式。这些个人信息只会被用来邮件奖品，或者用来联络我继续参加后续阶段的访谈研究(第二第三阶段等)。这些信息会在之后被销毁。

4. I understand that the interviews will be audio-taped and participants will be referred to by pseudonym in any publications arising from the research. 我理解访谈将会被录音，所有参与者都会在研究中使用化名

5. I understand that participation or non-participation in this research will have no effect on grades/assessment/employment. 我明白是否参与本项研究不会对个人成绩，评定，就业产生任何影响

6. I understand that my personal data in this research will be well protected by password, kept separate and electronically from the research data, and stored in a safe place. Personal data will only be accessed by the researcher and her two supervisors, and won't be used apart from for the research, after which it will be destroyed by formatting hardware. 我知道本研究的个人信息将会被加密保护，并且和研究数据分开在安全的地方保存。个人信息只会被研究者和导师运用于本研究项目，并会在研究周期结束后格式化销毁。

7. I understand that the research data (which will be stored electronically on a computer) will be destroyed by formatting hardware 10 years after the project finish date (07/01/2022).

我明白研究数据会储存在加密电脑硬盘上并在本研究结束日期（2022 年 1 月 7 日）的十年后被彻底销毁

8. I agree to take part in the above study. 我同意参加本项研究

Signature 签名 _____

Date 日期 _____

Part 1 第一部分

In this section you will be asked to answer questions related to migration basic personal information. 本阶段你会被询问到一些基本的个人信息问题

1. What gender do you identify as? 你认为你的性别是

Female 女性

Male 男性

Other 其他

Prefer not to say 选择不回答

2. How old are you? 你的年龄是 _____

3. What is your ethnic group 你的民族是

Majority (Han) 汉族

Minority (Other) 少数民族 _____

4. Is your Permanent Residence (HUKOU) in an urban or rural area? 你的户口所在地是?

Urban area 城市地区

Rural area 农村地区

5. Are you a single child? 你是独生子女吗?

Yes, I'm a single child. 是的我是独生子女

No, I have a sibling/siblings. 不是，我有兄弟姐妹

6. What is your educational background? 你的教育背景是?

Undergraduate candidate 大四学生

PGT candidate 研究生

PGR candidate 博士生

7. Name of Institution and School 你所在的学校及学院

CCNU 华中师范大学

WUT 武汉理工大学

HIFA 湖北美术学院

Name of school 你所在的学院是 _____ 学院

8. Are you a pre-service teacher? 你是免费/公费师范生吗?

Yes, I am. 是

No, I'm not. 否

9. Are you in a romantic relationship currently? 你现在是否有伴侣? (包括男/女朋友, 妻子/丈夫)

Yes. 是

No. 否

Choose not to say 选择不回答

Part 2 第二部分

In this section you will be asked to answer questions related to migration aspirations and intentions. 本阶段你将被询问到一些关于毕业后去向的问题

10. Where do you and your family originally come from? 你家庭的原本居住地是?

省份_____城市_____

11. Have you had migration experience before you came to Wuhan? 你在来到武汉上大学之前, 是否有过地区迁移的经历(指城市间的)?

Yes. 是

No. 否

12. What is your plan after getting your Degree? 在拿到学位后, 你打算做些什么?

Further education in China. 在国内继续读书, 升学

Study abroad 出国留学

Find a job/work. 找个工做/工做

Self-Employment. 自由职业者或自主创业

Take some time out. 先休息一段时间 (比如 gap year)

Other 其他 _____

a. (如果上一题选择了“找工作/工做”选项请作答此题) If you are looking for a job, what area are you looking in? 如果你打算找个工做或者已经找到了工做, 你会选择去哪个地区?

The area where the university is (Wuhan). 在大学的所在地 (武汉)

The area in which I currently reside (if not Wuhan). 在现在居住的地区 (如果不是武汉)

The area where my parents/family live (if not the current area). 我父母居住的地方 (如果不是武汉也不是现居地)

A different area. 其他地区

No preference. 没有特别的偏好

c. Does the job you found match your major? 你所找的工做和自己的本专业匹配吗?

Yes 是

No 否

14. Please state your intended location that you would like to live in after graduation (short term exchange or education not included) 请选择毕业后倾向长期居住的地区（一般指工作，不包括短期留学）

a. 城市名称

b. Is this city somewhere you used to live? 这是你以前居住的地方吗？（父母所在地）

Yes 是

No 否

15. If you had the opportunity, would you like to move permanently to another city, or would you prefer to continue living in this city or move back to where you used to live? 如果你有机会，你愿意永久搬去另外一个城市，还是你倾向于留在武汉或者以前居住的城市？

Yes, I would like to move to another city. 是的，我愿意去武汉和以前居住地以外的另外一座城市

No, I would like to move back to where I used to live. 不，我愿意去我以前居住过的城市

No, I'm going back to where I used to live, but I may think about moving to another city some time in the next 10 years. 不，我虽然打算回到原来住的地方，但是我觉得未来十年内我可能会搬去别的城市

No, I'm not leaving Wuhan, but I may think about moving to another city some time in the next 10 years. 不，我虽然没打算离开武汉，但是我觉得未来十年内我可能会搬去别的城市

No, I would like to stay in Wuhan. 不，我倾向于留在武汉

I don't know 我不知道

a. Please rate the strength of this intention (1=very weak, 5=very strong) 请选择上一题所选择的这个愿望的强烈程度

1 完全不强烈 2 比较不强烈 3 一般 4 比较强烈 5 非常强烈

strength 愿望强烈程度

16. Why have you chosen this place as your destination? Please select 1-4 of the most significant reasons that apply 为什么你选择了毕业后去这个地方？请选择你认为最重要的 1-4 四个原因

Please select between 1 and 4 answers.

Economic opportunities 经济因素（例如就业机会，薪资水平，职业发展前景）

Amenities (recreational, cultural, entertainment etc) 公共设施因素（例如文化和娱乐，比如图书馆，博物馆，剧院等）

Social relationships (where family, friends or partner stays, familiarity with the city etc) 社会关系因素（例如家庭朋友所在地，对城市熟悉程度等）

Living environment (such as location climate, pollution etc and/or social environment such as crime levels and traffic situation etc). 居住环境因素（例如自然环境诸如气候和环境污染，社会环境诸如犯罪率）

Living costs (such as housing prices) 生活成本因素（诸如房价）

Preferential policy 优惠政策（例如大学生落户政策）

Partner's location/Partner's preference 伴侣所在地/伴侣偏好

Personal preference 个人喜好

a. Please specify if you chose 'personal preference' 如果选择“个人喜好”选项，请在下面进行简单说明：

17. Why have you chosen this place as your destination? Please rank the importance level of these factors (1=not important, 5=very important) 为什么你选择了毕业后去这个地方？请选择这些因素在做出选择中的重要程度

请选择重要程度

1 完全没有影响 2 几乎没有影响 3 影响程度一般 4 在决定过程中影响较重 5 是我做出决定的主要因素

Economic opportunities 经济因素（例如就业机会，薪资水平，职业发展前景）

Amenities 公共设施因素（例如文化和娱乐，比如图书馆，博物馆，剧院等）

Social relationships 社会关系因素（例如家庭朋友所在地，对城市熟悉程度等）

Living environment 居住环境因素（例如自然环境诸如气候和环境污染，社会环境诸如犯罪率）

Preferential policy 优惠政策（例如大学生落户政策）

Partner's location/Partner's preference 伴侣（男女朋友或配偶）的所在地，或者TA的偏好

Personal preference 除开上述原因外的个人喜好

18.If you could get exactly the same job (meaning the same wages, and same position in the same company) in Wuhan as you could in your intended location, would you still like to move after graduation? 如果在毕业后你在武汉可以找到一个完全一样的工作（工资，公司，职位等等），排开这方面因素，你是否希望毕业后去其他城市？

Yes, I would still like to move to another city 是的，我还是想去其他城市

No, I prefer to stay in Wuhan 不，我会想留在武汉

19. Which of the following do you think has more impact on this aspiration? 你认为下列哪个对你毕业后生活地区的选择影响比较大？

What I would gain from the destination region 我会考虑我能从目标地区获得什么

Wherever I go, I don't want to stay in the current region anymore. 不管怎么样我都不想继续在现在居住的地方生活了

20. Do you think you **MUST** move from where you currently live to the region you intend to go to? 你认为你迫不得已要去其他地区吗?

Yes, I have strong intention to leave this region. 是的, 我有很强烈的离开这个地方的愿望 (因为这地方我待不下去了! 不走不行!)

No, I don't think it is necessary to leave this region. 不, 我觉得不一定要离开这个地方 (就算要去其他城市, 也不是因为在这个地区待不下去了)

a. What aspects of this region make you feel you would like to leave? 你所在的地方 (武汉) 的哪些方面让你想要离开?

Lack of job opportunities 就业机会缺乏

Living environment (natural aspects) 生活环境 (自然方面的)

Living environment (man made aspects) 生活环境 (人为的)

High living cost 生活成本太高

Personal reasons 私人原因

Other 其他

i. If you selected Other, please specify 如果选择了其他选项, 请说明:

21. Have you made any preparations for this move? (Job hunting, getting 'Hukou', buying or renting a flat?) 你为毕业后的迁移意向做了准备吗? (比如在目标地区找工作, 迁户口, 买房或是租房)

Yes, I've prepared enough to move. 是的, 我已经做了充分的准备

Yes, I've made some preparations, but not enough. 是的, 我做过准备但是不够充分

No, I haven't. 不, 我还没有准备过

22. Please rate how likely you think it is that you will live in the destination you choose in the future (1=unlikely, 5= likely) 请选择你认为未来在你想去的目标地区居住的可能性

1 完全不可能 2 几乎不可能 3 一般 4 比较有可能 5 非常有可能

Possibility 可能性

23. To what extent are you familiar with your destination? 你对你想迁居地区(城市)的熟悉程度?

Never been and know nothing about it. 完全没去过, 也不了解

Have heard about it but not familiar. 听说过, 但是并不熟悉

Have never been but have a fair amount of information/knowledge about it. 虽然没去过, 但是搜集了关于这个地区充足的资料 and 知识

Have visited once or twice but never lived there. 以前去过一两次, 但是并没有长期居住过

Have lived there briefly. 在这个地区住过一小段时间

Have lived there for a relatively long period and quite familiar with the destination. 在这个地区住过很长一段时间，对这个地区比较熟悉

Have lived there for a long period and very familiar with the destination. 在这个地区住过非常长的时间，并且十分熟悉这个地区

Have been living there since I was born (including going to other regions for Higher Education). 从小就在这个地区居住（包括离开这个地区去外地读大学又回去）

24. How many friends do you have in your target region? 你在想迁居的地区有多少朋友？

None. 没有朋友

A few. 有一两个两三个

Some. 有一些

Many. 有许多

The majority of my friends are there. 大部分朋友都在这个地区

25. How do you usually get career information? 你平时通过何种途径获取就业信息？
(请选择 1-3 种常用的途径)

Please select between 1 and 3 answers.

Internet search engine. 搜索引擎

Social media. 社交网络

Peers and friends. 同学朋友

University career consultation. 大学就业指导中心

Newspaper, radio and/or television. 新闻报纸, 电视广播

Parents. 父母关系

Job Fair on/off campus. 校内或校外招聘会

Other 其他

a. If you selected Other, please specify

Appendix 4 Table of variable

Variable	Type	Meaning	number of responses
Gender	Categorical	Gender of participants	934
Age	Continuous	Age of participants in 2018	957
Ethnicity	Categorical	Whether participants are majority or not	957
HUKOU	Categorical	Household registration type (Rural/Urban)	956
Siblings	Categorical	Whether participant is a single child or not	933
higher education institution	Categorical	Higher educational institutions	957
CCNU_Discipline	Categorical	Which school of CCNU participants are in	288
PS_Teacher	Categorical	Whether participants from CCNU are pre-service teachers or not	288
WUT_Discipline	Categorical	Which school of WUT participants are in	297
HIFA_Discipline	Categorical	Which major at HIFA participants are in	372
DISC_type	Categorical	Type of Discipline (Liberal arts/general science/creative art/PE)	957

Partner	Categorical	Whether participants currently have a partner or not	957
REG_ORI	Categorical	Region of origin	957
REG_ORI_category	Categorical	Categorised region of origin (Eastern coastal area/Central China/Western China/North-eastern China)	957
REG_DES_category	Categorical	Categorised region of destination (Eastern coastal area/Central China/Western China North-eastern China)	957
PRE_Migration	Categorical	Previous migration experience between cities	942
Plan	Categorical	Plan after getting their degree	957
REG_DES_WORK	Categorical	Intended destination of work (if job already found)	531
EDUJOB_MATCH	Categorical	Whether their job matches their major or not	531
REG_DES_LIVE	Categorical	Intended destination for long-term living	957
RETURN_MIGRATION	Categorical	Whether destination is where their family is	929
MOVE_INTENTION	Categorical	Whether respondents intend to move in the future or not	957
STRENGTH	Ordinal	The strength of the moving intention	957
FACTOR	Categorical	A group of variables related to the factors that respondents weigh as important	957
INTENTION_eco_excluded	Categorical	Excluding economic factors, would respondents still move?	957

PULL	Categorical	Pull factors	957
PUSH	Categorical	Push factors	956
MIG_prep	Categorical	Migration preparation	957
MIG_poss	Ordinal	Migration possibility	957
DES_Familiarity	Ordinal	Familiarity with the destinations	957
DES_Friends	Ordinal	Friends in the destination regions	954
HC_Scholarship	Categorical	Whether respondents had a scholarship in university or not	952
HC_exchange	Categorical	Whether respondents had experience as exchange students or not	946
HC_studentleader	Categorical	Whether respondents had experience as student leaders or not	943
HC_party	Categorical	Whether respondents joined the party or not	953
HC_intern	Categorical	Whether respondents had intern experience apart from the compulsory internship in university or not	951
HC_eng	Categorical	A group of variables related to whether students have English certifications or not, representing their English level	957
FAM_income	Ordinal	Household income	957
FAM_domicile	Categorical	Original domicile type	955

FAM_housing	Categorical	Family housing type	955
FAM__soicialnetwork	Ordinal	Family social network	950
FAM_F_edu	Categorical	Father's education level	957
FAM_M_edu	Categorical	Mother's education level	957
FAM_party	Categorical	Whether parents are party members or not	947
FAM_F_occ	Categorical	Father's occupation	957
FAM_M_occ	Categorical	Mother's occupation	955
POL_aware	Categorical	At what level are respondents aware of graduate retention policies?	957
MIG_type	Categorical	Categorised potential migrant type	957
FAM_subsidies	Categorical	Whether students got subsidies in university or not	951
FACTOR_eco	ordinal	The influence level of Economic opportunities in migration intention	
FACTOR_ame	ordinal	The influence level of amenities in migration intention	
FACTOR_soc	ordinal	The influence level of social relationships in migration intention	
FACTOR_env	ordinal	The influence level of living environment opportunities in migration intention	

FACTOR_pol	ordinal	The influence level of preferential policy in migration intention
FACTOR_par	ordinal	The influence level of partner's location/partner's preference in migration intention
FACTOR_per	ordinal	The influence level of personal preference in migration intention

References

- BALLWEG, J. A. & LI, L. 1992. Employment Migration among Graduates of Southern Land-Grant Universities. *Southern Rural Sociology*, 9, 91-102.
- BENJAMIN, B. & BOGUE, D. J. 1969. Principles of Demography. *Journal of the Royal Statistical Society*, 19, 410.
- BIAGI, B., FAGGIAN, A. & MCCANN, P. 2011. Long and short distance migration in Italy: the role of economic, social and environmental characteristics. *Spatial Economic Analysis*, 6, 111-131.
- BRYMAN, A. 2016. *Social research methods*, Oxford university press.
- BUCHANAN, J., FINEGOLD, D., MAYHEW, K., WARHURST, C. & DALZIEL, P. 2017a. Education and Qualifications as Skills.
- BUCHANAN, J., FINEGOLD, D., MAYHEW, K., WARHURST, C., HUMBURG, M. & VELDEN, R. V. D. 2017b. What Is Expected of Higher Education Graduates in the Twenty-first Century?
- CAI, B. W., RUI 2009. The division of liberal arts and Science in high school: the essence of the problem, the analysis of the advantages and disadvantages and the direction of reform (高中文理分科:问题实质、利弊分析及改革路向). *课程.教材.教法*, 11-18.
- CAI, F. & WANG, D. 2003. Migration As Marketization: What Can We Learn from China's 2000 Census Data? *China Review*, 3, 73-93.
- CAI, F. & WANG, D. Impacts of internal migration on economic growth and urban development in China. IOM is committed to the principle that humane and orderly migration benefits migrants and society. As an intergovernmental organization, IOM acts with its partners in

the international community to: assist in meeting the operational challenges of migration; advance understanding of migration issues; encourage social and economic development through migration; and uphold the human dignity and well-being of migrants., 2008. 245.

CAMPBELL, B. C. & BARONE, L. 2012. Evolutionary basis of human migration. *In:*

CAMPBELL, B. C. & CRAWFORD, M. H. (eds.) *Causes and Consequences of Human Migration: An Evolutionary Perspective*. Cambridge: Cambridge University Press.

CARLING, J. & SCHEWEL, K. 2018. Revisiting aspiration and ability in international migration.

Journal of Ethnic and Migration Studies, 44, 945-963.

CASTLES, S. 2010. Understanding Global Migration: A Social Transformation Perspective.

Journal of Ethnic and Migration Studies: Theories of Migration and Social Change, 36, 1565-1586.

CENTRAL CHINA NORMAL UNIVERSITY 2018. Annual report on employment quality of

graduates in Central China Normal University in 2017. Central China Normal University.

CHEN, X.-P. & CHEN, C. C. 2004. On the intricacies of the Chinese guanxi: A process model of

guanxi development. *Asia Pacific Journal of Management*, 21, 305-324.

CIRIACI, D. 2014. Does university quality influence the interregional mobility of students and

graduates? The case of Italy. *Regional Studies*, 48, 1592-1608.

CORCORAN, J., FAGGIAN, A. & MCCANN, P. 2010. Human capital in remote and rural

Australia: The role of graduate migration. *Growth and Change*, 41, 192-220.

CRESWELL, J. W. & PLANO CLARK, V. L. 2018. *Designing and conducting mixed methods*

research, Thousand Oaks, California, SAGE Publications, Inc.

CROTTY, M. 1998. *The foundations of social research: meaning and perspective in the research*

process, Los Angeles, CA;London, SAGE.

DAVANZO, J. 1978. Does unemployment affect migration? Evidence from micro data. *The*

Review of Economics and Statistics, 504-514.

- DAVANZO, J. 1981. Repeat migration, information costs, and location-specific capital. *Population and environment*, 4, 45-73.
- DAVANZO, J. 1983. Repeat Migration in the United States: Who Moves Back and Who Moves On? *The Review of Economics and Statistics*, 65, 552-559.
- DENG, R. 2018. The policy arrangement, debate and reform of the "one million college students studying in China for entrepreneurship and employment program" ("百万大学生留汉创业就业计划" 的政策梳理, 争论与改革). *赤峰学院学报(哲学社会科学版)*, 52-57.
- DENZIN, N. K. & LINCOLN, Y. S. 2011. *The SAGE handbook of qualitative research*, Thousand Oaks, Calif;London;, SAGE.
- DEUTSCH, F. M. 2006. Filial Piety, Patrilineality, and China's One-Child Policy. *Journal of Family Issues*, 27, 366-389.
- DIJK, J. V., FOLMER, H., HERZOG, H. W. & SCHLOTTMANN, A. M. 1989. Labor market institutions and the efficiency of interregional migration: a cross-nation comparison. *Migration and Labor Market Adjustment*. Springer.
- DUDOVSKIY, J. 2016. The Ultimate Guide to Writing a Dissertation in Business Studies: A Step-by-Step Assistance. *Pittsburgh, USA*.
- DUMONT, J.-C., MARTIN, J. P. & SPIELVOGEL, G. 2007. Women on the move: the neglected gender dimension of the brain drain.
- FAGGIAN, A., COMUNIAN, R. & LI, Q. C. 2014. Interregional migration of human creative capital: The case of "Bohemian graduates". *Geoforum*, 55, 33-42.
- FAGGIAN, A., CORCORAN, J. & PARTRIDGE, M. 2015. Interregional Migration Analysis. *Handbook of Research Methods and Applications in Economic Geography*.
- FAGGIAN, A., CORCORAN, J. & ROWE, F. 2017a. Special issue on youth and graduate migration. *The Annals of Regional Science*, 59, 571-575.

- FAGGIAN, A. & MCCANN, P. 2008. Human capital, graduate migration and innovation in British regions. *Cambridge Journal of Economics*, 33, 317-333.
- FAGGIAN, A. & MCCANN, P. 2009a. Human capital and regional development. *Handbook of regional growth and development theories*, 133-151.
- FAGGIAN, A. & MCCANN, P. 2009b. Universities, agglomerations and graduate human capital mobility. *Tijdschrift voor economische en sociale geografie*, 100, 210-223.
- FAGGIAN, A., MCCANN, P. & SHEPPARD, S. 2006. An analysis of ethnic differences in UK graduate migration behaviour. *The Annals of Regional Science*, 40, 461-471.
- FAGGIAN, A., MCCANN, P. & SHEPPARD, S. 2007a. Human capital, higher education and graduate migration: an analysis of Scottish and Welsh students. *Urban Studies*, 44, 2511-2528.
- FAGGIAN, A., MCCANN, P. & SHEPPARD, S. 2007b. Some evidence that women are more mobile than men: Gender differences in UK graduate migration behavior. *Journal of regional science*, 47, 517;539;-539.
- FAGGIAN, A., RAJBHANDARI, I. & DOTZEL, K. R. 2017b. The interregional migration of human capital and its regional consequences: a review. *Regional Studies*, 51, 128-143.
- FAN, C. C. 1996. Economic opportunities and internal migration: a case study of Guangdong Province, China. *The Professional Geographer*, 48, 28-45.
- FAN, C. C. 2005. Modeling interprovincial migration in China, 1985-2000. *Eurasian Geography and Economics*, 46, 165-184.
- FIELDING, A. & HALFORD, S. 1993. Geographies of Opportunity: A Regional Analysis of Gender-Specific Social and Spatial Mobilities in England and Wales, 1971-81. *Environment and Planning A: Economy and Space*, 25, 1421-1440.
- FIELDING, A. J. 1992. Migration and Social Mobility: South East England as an Escalator Region. *Regional Studies*, 26, 1-15.

- FINDLAY, A., PACKWOOD, H., MCCOLLUM, D., NIGHTINGALE, G. & TINDAL, S. 2018. Fees, flows and imaginaries: exploring the destination choices arising from intra-national student mobility. *Globalisation, Societies and Education*, 16, 162-175.
- FLORIDA, R. 2002. *The rise of the creative class: and how it's transforming work, leisure, community and everyday life*, New York, NY, Basic Books.
- FLORIDA, R., MELLANDER, C. & QIAN, H. 2012. China's Development Disconnect. *Environment and Planning A: Economy and Space*, 44, 628-648.
- FRANKLIN, R. S. & PLANE, D. A. 2006. Pandora's Box: The Potential and Peril of Migration Data from the American Community Survey. *International Regional Science Review*, 29, 231-246.
- GAO, Z. & KE, H. 2020. Evolution and coordinated development of inter provincial regional economic gap in China (中国省际区域经济差距演进及协调发展). *区域经济评论*, 24-36.
- GE, C. 2009. Chinese traditional family culture and its modern value (中国传统家庭文化及其现代价值). *政工研究动态*, 1.
- GERT, B. 2010. Pragmatism and the Philosophical Foundations of Mixed Methods Research. In: ABBAS, T. & CHARLES, T. (eds.) *SAGE Handbook of Mixed Methods in Social & Behavioral Research*. 2 ed. Thousand Oaks, California: SAGE Publications, Inc.
- GOSAL, G. & KRISHAN, G. 1975. Patterns of internal migration in India. *People on the Move*, 193, 206.
- GRAVES, P. E. 1980. Migration and climate. *Journal of regional Science*, 20, 227-237.
- GRAVES, P. E. 1983. Migration with a composite amenity: the role of rents. *Journal of regional science*, 23, 541-546.
- GRAY, D. E. 2013. Theoretical perspectives and research methodologies. *Doing research in the real world*. Sage.

- GREENE, J. C., CARACELLI, V. J. & GRAHAM, W. F. 1989. Toward a conceptual framework for mixed-method evaluation designs. *Educational evaluation and policy analysis*, 11, 255-274.
- GREENWOOD, M. J. 1997. Internal migration in developed countries. *Handbook of population and family economics*, 1, 647-720.
- GREENWOOD, M. J. & HUNT, G. L. 1989. Jobs versus amenities in the analysis of metropolitan migration. *Journal of Urban Economics*, 25, 1-16.
- GUINNESS, P. 2002. *Migration*, Hodder & Stoughton.
- GUSTAFSON, P. 2001. Roots and routes: Exploring the relationship between place attachment and mobility. *Environment and behavior*, 33, 667-686.
- HANSEN, H. K. & NIEDOMYSL, T. 2008. Migration of the creative class: evidence from Sweden. *Journal of Economic Geography*, 9, 191-206.
- HAO, Y. 2013. *Study on the rational choice of the first employment region (初次就业地域的理性选择研究)*. 山西财经大学.
- HE, J. 2002. The Regional Concentration of China's Interprovincial Migration Flows, 1982-90. *Population and Environment*, 24, 149-182.
- HE, J. 2011. System philosophy and Deng Xiaoping's view of regional economic development of "getting rich first and getting rich later" (系统哲学与邓小平“先富带动后富”的区域经济发展观). *系统科学学报*, 19, 10-13.
- HE, W. & LONG, L. 2009. Construction of the employment index system for college graduates (大学毕业生专业对口就业指标体系的构建). *教育研究与实验*, 87-91.
- HE, Z. & ZHAI, G. 2015. An analysis of Chinese College Students' willingness to choose a city for employment and its influencing factors (我国大学生就业城市选择意愿及其影响因素分析). *人文地理*, 37-42.

- HICKS, J. R. 1932. The Theory of Wages. (1932). *et seq*, 54.
- HOARE, A. & CORVER, M. 2010. The Regional Geography of New Young Graduate Labour in the UK. *Regional Studies*, 44, 477-494.
- HOTCHKISS, J. L. & RUPASINGHA, A. 2018. Individual Social Capital and Migration.
- HU, H. 2001. Professional counterpart, misunderstanding of human resource allocation (专业对口, 人力资源配置的误区). *中国人才(上半月)*, 000, 39-40.
- HUBEI INSTITUTION OF FINE ART 2018. Annual report on employment quality of graduates in Hubei Institution of Fine Art in 2017. Hubei Institution of Fine Art.
- HUBEI PROVINCIAL BUREAU OF STATISTICS 2018. Hubei Statistical Yearbook. Chinese Statistics Press.
- HUNT, G. L. 1993. Equilibrium and disequilibrium in migration modelling. *Regional studies*, 27, 341-349.
- HUNT, J. 2004. Are migrants more skilled than non-migrants? Repeat, return, and same-employer migrants. *Canadian Journal of Economics/Revue canadienne d'économique*, 37, 830-849.
- JACKMAN, R. & SAVOURI, S. 1992. Regional migration versus regional commuting: the identification of housing and employment flows. *Scottish Journal of Political Economy*, 39, 272-287.
- JIANG, J. 2017. Higher Education in China. Oxford University Press.
- JOHNSON, R. B. 2017. Dialectical Pluralism: A Metaparadigm Whose Time Has Come. *Journal of Mixed Methods Research*, 11, 156-173.
- JOHNSON, R. B. & ONWUEGBUZIE, A. J. 2004. Mixed Methods Research: A Research Paradigm Whose Time Has Come. *Educational Researcher*, 33, 14-26.
- JOHNSON, R. B., ONWUEGBUZIE, A. J. & TURNER, L. A. 2007. Toward a definition of mixed methods research. *Journal of mixed methods research*, 1, 112-133.

- KOCHAN, D. 2009. Visual Representation of Internal Migration and Social Change in China. *China Information*, 23, 285-316.
- KRÖHNERT, S. & VOLLMER, S. 2012. Gender-specific migration from Eastern to Western Germany: Where have all the young women gone? *International migration*, 50, 95;112;-112.
- KUREKOVÁ, L. 2011. The effects of structural factors in origin countries on migration: The case of central and Eastern Europe.
- LAWSON, V. 1999. Questions of migration and belonging: understandings of migration under neoliberalism in Ecuador. *International Journal of Population Geography*, 5, 261-276.
- LEE, E. S. 1966. A theory of migration. *Demography*, 3, 47-57.
- LI, C. 1996. Surplus Rural Laborers and Internal Migration in China: Current Status and Future Prospects. *Asian Survey*, 36, 1122-1145.
- LI, J. 2018a. In the first quarter, nearly 100000 college students stayed in Wuhan for entrepreneurship and employment (一季度近 10 万大学生留武汉创业就业). *Changjiang Daily*, 11 April.
- LI, P. S. 2004. Social capital and economic outcomes for immigrants and ethnic minorities. *Journal of international migration and integration*, 5, 171-190.
- LI, Q. & XU, L. 2017. How to define the middle-income group? (怎样界定中等收入群体?). *北京社会科学*, 4-10.
- LI, Y. 2018b. The "one million college students studying in China entrepreneurship and employment project" in Wuhan has been launched for two years, and the total number of college students studying in China has reached more than 700000 (武汉“百万大学生留汉创业就业工程”启动 2 年 大学生留汉总数已达 70 余万). *Chutian Metropolis Daily*, 3.
- LIANG, Z. & WHITE, M. J. 1996. Internal Migration in China, 1950-1988. *Demography*, 33, 375-384.

- LIU, R. 2011. *A comparative study on the employment expectation of college students from different places of origin* (不同生源地大学生就业期望的比较研究). 湖南师范大学.
- LIU, Y. & SHEN, J. 2014. Spatial patterns and determinants of skilled internal migration in China, 2000–2005. *Papers in Regional Science*, 93, 749-771.
- LIU, Y. & SHEN, J. 2017. Modelling skilled and less-skilled interregional migrations in China, 2000–2005. *Population, Space and Place*, 23.
- LIU, Y., SHEN, J., XU, W. & WANG, G. 2017. From school to university to work: migration of highly educated youths in China. *The Annals of Regional Science*, 59, 651-676.
- LIU, Y., STILLWELL, J., SHEN, J. & DARAS, K. 2014. Interprovincial Migration, Regional Development and State Policy in China, 1985–2010. *Applied Spatial Analysis and Policy*, 7, 47-70.
- LIU, Z. 2016. *Analysis and comprehensive evaluation of influencing factors on the choice of employment city for fresh graduates* (应届毕业生就业城市选择影响因素分析与综合评价). 电子科技大学.
- LLC, H. P. 2020. *Collins Disctionary* [Online]. HarperCollins Publishers LLC. Available: <https://www.collinsdictionary.com/submission/20119/senpai> [Accessed].
- LOWRY, I. S. 1966. *Migration and metropolitan growth: two analytical models*, Chandler Pub. Co.
- LU, S. & WANG, Q. 2007. The regional mobility of undergraduates studying in Shanghai and the regional balance in China (来沪就读本科生地域流动与中国的地区平衡——大学生就业地选择的调查与思考). *中国青年研究*, 2007, 52-56.
- LYCAN, D. 1975. Interregional migration in the United States and Canada. *People on the Move*, 207-21.

- MA, L., LIU, Y. & LUO, L. 2017. Gender difference of college graduates returning home for employment: Trend and characteristics (高校毕业生返乡就业的性别差异:趋势与特点). *教育与经济*, 13-19.
- MA, L. & PAN, K. 2013. Stay or leave—— An empirical study on the relationship between the choice of employment place of college graduates and the place of student origin and the place of College (留还是流?——高校毕业生就业地选择与生源地、院校地关系的实证研究). *清华大学教育研究*, 34, 118-124.
- MANNING, C. 2002. Structural Change, Economic Crisis and International Labour Migration in East Asia. *World Economy*, 25, 359-385.
- MASLOW, A. H. 1943. A theory of human motivation. *Psychological review*, 50, 370.
- MONK, J. & HANSON, S. 1982. On not excluding half of the human in human geography. *The Professional Geographer*, 34, 11-23.
- MORRISON, P. A. 1971. Chronic Movers and the Future Redistribution of Population: A Longitudinal Analysis. *Demography*, 8, 171-184.
- MULLEN, A. L. & BAKER, J. 2008. Gender, race, and ethnic segregation of science fields in US universities. *Journal of Women and Minorities in Science and Engineering*, 14.
- NATIONAL BUREAU OF STATISTICS OF CHINA 2011. Division method of East, West, central and northeast regions (东西中部和东北地区划分方法).
- NATIONAL BUREAU OF STATISTICS OF CHINA 2018. Annual Data by Province. Beijing.
- NEUMAN, W. L. 2000. *Social research methods: qualitative and quantitative approaches*, Boston, Allyn and Bacon.
- NIEDOMYSŁ, T. 2006. Migration and place attractiveness. *Geografiska Regionstudier Nr*, 13, 79-89.

- NIEDOMYSL, T. 2010. TOWARDS A CONCEPTUAL FRAMEWORK OF PLACE ATTRACTIVENESS: A MIGRATION PERSPECTIVE. *Geografiska Annaler. Series B, Human Geography*, 92, 97-109.
- NIEDOMYSL, T., HANSEN, H. K., CIRCLE, INSTITUTIONEN FÖR KULTURGEOGRAFI OCH EKONOMISK, G., LUND, U., DEPARTMENT OF HUMAN, G. & LUNDS, U. 2010. What matters more for the decision to move: jobs versus amenities. *Environment & planning. A*, 42, 1649;1636;-1649.
- NIEDOMYSL, T., LUND, U., DEPARTMENT OF HUMAN, G., INSTITUTIONEN FÖR KULTURGEOGRAFI OCH EKONOMISK, G. & LUNDS, U. 2008. Residential preferences for interregional migration in Sweden: demographic, socio-economic and geographical determinants. *Environment and Planning A*, 40, 1109.
- NIEDOMYSL, T., MALMBERG, B., LUND, U., DEPARTMENT OF HUMAN, G., INSTITUTIONEN FÖR KULTURGEOGRAFI OCH EKONOMISK, G. & LUNDS, U. 2009. Do open-ended survey questions on migration motives create coder variability problems? *Population, Space and Place*, 15, 79.
- NOY, C. 2008. Sampling knowledge: The hermeneutics of snowball sampling in qualitative research. *International Journal of social research methodology*, 11, 327-344.
- OECD 2015. *Connecting with Emigrants: A Global Profile of Diasporas*, OECD Publishing.
- OWEN, D. 1992. Migration and employment. *Migration processes and patterns*, 2, 205-224.
- PENG, D. 2010. *An empirical study on the influencing factors of employment regional mobility of college graduates in China (我国高校本科毕业生就业区域流动影响因素的实证研究)*. 西南财经大学.
- POULSEN, M., ROWLAND, D. & JOHNSTON, R. J. 1975. *Patterns of Maori migration in New Zealand*, Methuen.

- QI, W., ABEL, G. J., MUTTARAK, R. & LIU, S. 2017. Circular visualization of China's internal migration flows 2010–2015. *Environment and Planning A: Economy and Space*, 49, 2432-2436.
- QI, Y. Q. & NIU, J. L. 2013. Health Selection Effects in China's Internal Migration. *ASIAN POPULATION STUDIES*, 9, 142-155.
- QIAN, H. 2010. Talent, creativity and regional economic performance: the case of China. *The Annals of Regional Science*, 45, 133-156.
- ROBINSON, V. 1993. "Race", gender, and internal migration within England and Wales. *Environment & Planning A*, 25, 1,453.
- ROGERS, A. 1967. A Regression Analysis of Interregional Migration in California. *The Review of Economics and Statistics*, 49, 262-267.
- ROWE, F., CORCORAN, J. & BELL, M. 2017. The returns to migration and human capital accumulation pathways: non-metropolitan youth in the school-to-work transition. *The Annals of Regional Science*, 59, 819-845.
- SAGE, J., EVANDROU, M. & FALKINGHAM, J. 2013. Onwards or Homewards? Complex Graduate Migration Pathways, Well-being, and the 'Parental Safety Net'. *Population, Space and Place*, 19, 738-755.
- SALE, J. E., LOHFELD, L. H. & BRAZIL, K. 2002. Revisiting the quantitative-qualitative debate: Implications for mixed-methods research. *Quality and quantity*, 36, 43-53.
- SAVAGE, M. 1988. The Missing Link? The Relationship between Spatial Mobility and Social Mobility. *The British Journal of Sociology*, 39, 554-577.
- SCHNEIDER, L. & KUBIS, A. 2010. Are there gender-specific preferences for location factors? A Grouped Conditional Logit-Model of interregional migration flows in Germany. *Schmollers Jahrbuch*, 130, 143-168.
- SCHWARTZ, A. 1976. Migration, Age, and Education. *Journal of Political Economy*, 84, 701-719.

- SHEN, J. & LIU, Y. 2016. Skilled and less-skilled interregional migration in China: A comparative analysis of spatial patterns and the decision to migrate in 2000–2005. *Habitat International*, 57, 1-10.
- SHI, Y. 2015. *The Determinants of College Graduates' Migration Decision and Its Impact on Starting Salaries in China*. Columbia University.
- SHU, M. 2003. *The formation, essence and influence of the concept of "family country isomorphism"* (“家国同构”观念的形成, 实质及其影响).
- SJAASTAD, L. A. 1962. The Costs and Returns of Human Migration. *Journal of Political Economy*, 70, 80-93.
- SONG, C., YI, Y. & LI, A. 2014. Analysis on the characteristics of College Students' employment expectation from the perspective of students' place of origin (生源地视角下大学生就业期望特征分析). *中国大学生就业*, 8-12.
- STARK, O. & BLOOM, D. E. 1985. The new economics of labor migration. *The American Economic Review*, 75, 173-178.
- TAM, T. & JIANG, J. 2015. Divergent urban-rural trends in college attendance: State policy bias and structural exclusion in China. *Sociology of Education*, 88, 160-180.
- TANG, A. Z. R., CORCORAN, J. & ROWE, F. 2017. The role of migration on education-job mismatch: evidence from overseas graduates in Australia. *Graduate Migration and Regional Development: An International Perspective*, 11.
- TASHAKKORI, A., TEDDLIE, C. & TEDDLIE, C. B. 1998. *Mixed methodology: Combining qualitative and quantitative approaches*, Sage.
- TEAM, N. N. U. S. O. M. S. P. N. 2015. The tendency of fresh graduates to return to employment is becoming clear -- a survey report on the willingness of fresh graduates to return in 2015 (应届毕业生回流就业倾向逐渐明朗——2015年应届大学毕业生回流意愿调查报告). *光明日报*, p.1.

- THE MINISTRY OF EDUCATION OF THE PRC 2017. Notice from the Ministry of Education and other national governmental departments announcing the list of 'double first class universities and disciplines'. *In: EDUCATION, T. M. O. (ed.). the Ministry of Education, the ministry of finance, National Development and Reform Commission, .*
- THE STATE COUNCIL OF THE PEOPLE'S REPUBLIC OF CHINA 2014. Implementation opinions of the State Council on deepening the reform of the examination and enrollment system (国务院关于深化考试招生制度改革的实施意见).
- THE STATE COUNCIL OF THE PEOPLE'S REPUBLIC OF CHINA 2017. Wuhan released the new policy of "upgraded version" for university students studying in China (武汉发布留汉大学生“升级版”新政).
- TOURANGEAU, R. & SMITH, T. W. 1996. Asking sensitive questions: The impact of data collection mode, question format, and question context. *Public opinion quarterly*, 60, 275-304.
- TULI, F. 2010. The basis of distinction between qualitative and quantitative research in social science: Reflection on ontological, epistemological and methodological perspectives. *Ethiopian Journal of Education and Sciences*, 6.
- VENHORST, V., VAN DIJK, J. & VAN WISSEN, L. 2011. An analysis of trends in spatial mobility of Dutch graduates. *Spatial Economic Analysis*, 6, 57-82.
- VILHELMSON, B. & THULIN, E. 2013. Does the Internet encourage people to move? Investigating Swedish young adults' internal migration experiences and plans. *Geoforum*, 47, 209-216.
- VILHELMSON, B. & THULIN, E. 2016. Environment as a Multifaceted Migration Motive: Meanings and Interpretations Among a Group of Young Adults in Sweden. *Population, Space and Place*, 22, 276-287.

- WUHAN UNIVERSITY OF TECHNOLOGY 2018. Annual report on employment quality of graduates in Wuhan University of Techonology in 2017. Wuhan University of Techonology.
- YANG, S. 2011. *Family changes and family cohesion in Contemporary Chinese cities* (中国当代城市家庭变迁与家庭凝聚力).
- YU, J. & GAO, X. 2018. The difference between inter provincial and intra provincial population flow in China (中国人口省际流动与省内流动的差异性). *人口与经济*, 38-47.
- YUE, C. 2011. Analysis on the characteristics and influencing factors of College Students' inter provincial mobility (大学生跨省流动的特点及影响因素分析). *复旦教育论坛*, 57-62.
- YUE, C. 2012. Analysis of employment status of college graduates: 2003-2011 (高校毕业生就业状况分析:2003~2011). *北京大学教育评论*, 10, 32-47.
- YUE, C. 2014. Gender and Migration: Evidence from College Graduates in China. *Education's Role in Preparing Globally Competent Citizens*, 371.
- YUE, C. & LI, X. 2016. Analysis on the characteristics of inter provincial mobility of college graduates (高校毕业生跨省流动的特征分析). *教育与经济*, 11-20.
- YUN, S. 2016. Current situation and Prospect of the research on the regional direction of College Students' Employment (大学生就业区域流向研究现状与展望). *技术经济与管理研究*, 43-47.
- ZHANG, M. & LIU, B. 2006. The present situation and Countermeasures of gender problems in the development of science and technology in China (我国科技发展中性别问题的现状与对策). *哈尔滨工业大学学报(社会科学版)*, 008, 6-11.
- ZHAO, M. & HU, Y. 2019. Migration premium? The economic returns to youth inter-province migration in post-reform China. *Journal of Youth Studies*, 1-19.

- ZHAO, Y. 1999. Leaving the countryside: rural-to-urban migration decisions in China. *American Economic Review*, 89, 281-286.
- ZHENG, Y. 2018. Investigation and Analysis on the gender difference of employment mobility of college graduates in China (我国高校毕业生就业流动性别差异的调查分析). *大学教育科学*, 43-50,125.
- ZHENG, Y. & WU, Y. 2017a. An analysis of the gender difference in the employment mobility of college students across the Strait -- Based on the survey data of college graduates in Fujian Province and Taiwan (两岸大学生就业流动的性别差异分析 ——基于福建省和台湾地区高校毕业生的调查数据). *复旦教育论坛*, 15, 71-75.
- ZHENG, Y. & WU, Y. 2017b. Narrative analysis of gender difference in employment of college graduates (高校毕业生就业性别差异的叙事分析). *高教发展与评估*, 33, 19-26.
- ZHONG, Q. & WEN, D. 2007. Regional imbalance in employment of college graduates and Its Countermeasures (高校毕业生就业地域失衡及其对策). *求索*, 117-119.
- ZHOU, J. 2009. *Study on the distribution and economic motivation of inter provincial population migration in China from 2000 to 2005* (20052000-2005 年我国省际人口迁移的分布状况和经
济动因研究). 复旦大学.
- ZHU, H., ZHANG, B. & MA, L. 2019. Research on China's floating population in the context of new urbanization: issues and Prospects (新型城镇化背景下中国流动人口研究: 议题与展望). *Scientia Geographica Sinica*, 39.
- ZHU, Y. 2008. *Study on the influencing factors and flow direction of college graduates in China* (我国高校毕业生流动的影响因素及流向研究).
- ZIPF, G. K. 1946. The P 1 P 2/D hypothesis: on the intercity movement of persons. *American sociological review*, 11, 677-686.