

## Geographical Mobility of the Tertiary Educated Perspectives from Education and Social Space

This dissertation examines the geographical mobility of tertiary educated individuals upon ending higher education. Specifically, the mobility propensities and destinations of tertiary educated individuals in Sweden are studied. While economic perspectives dominate research on geographical mobility of the tertiary educated, this dissertation examines geographical mobility through an educationally oriented social space perspective, a new approach in this field of research. The complexity of measuring and understanding patterns of geographical mobility from higher education are explored using Pierre Bourdieu's conceptualization of social space in a series of three complimentary studies.

The first study reviews current research on geographical mobility of the tertiary educated in Europe and introduces social space as a concept for understanding patterns of geographical mobility. The second study explores the challenges of measuring geographical mobility to and from higher education and underscores the importance of the educational context when measuring this mobility. The third study centers on how gender mediates the relationship of social space and the return of tertiary educated individuals to rural areas after higher education. An implicit theme in these studies is the relationship of social and geographical mobility, which is explored through an integrated discussion of the results from these studies.



**Aimee Haley** has previously worked in higher education administration and is a researcher in the field of higher education. Her research interests concern participation and retention in higher education, education-to-work transitions, and the geographies of higher education. She takes an interdisciplinary approach to her research and draws on perspectives from education, sociology, and human geography.

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Aimee Haley



GÖTEBORGS UNIVERSITET  
ACTA UNIVERSITATIS GOTHOBURGENSIS

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Perspectives from Education and Social Space

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## Abstract

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The purpose of this research is to illuminate the complexity of measuring and understanding patterns of geographical mobility from higher education to employment. This is done by employing an educationally oriented social space perspective through a series of three complimentary papers and an integrated discussion. This topic is important for educational research because higher education institutions are expected to attract and retain tertiary educated individuals in their regional labor markets, and researching geographical mobility at the national level gives insight on the regional distribution of these individuals.

Study I summarizes peer-reviewed literature on national geographical mobility of the tertiary educated from a European perspective. The study discusses how regional characteristics, education, and demographic factors are most often cited as influencing mobility propensity and destination after higher education among the tertiary educated. The study draws attention to the prevalence of economic perspectives and lack of a relational interpretation of these factors. Therefore, this study contributes a discussion on “social space” as an approach to understanding the interrelationships of these factors. Examples of how research on higher education mobility can develop by using the concept “social space” and a discussion of social space from four philosophical starting points ensue.

The empirical basis for the two other studies is Swedish register data for individuals born between 1973 and 1982. From a spatial perspective, Study II focuses on methodological issues in studying geographical mobility at the national level. Binary logistic regression is used to examine changes in

statistical outcomes when different measures of geographical mobility are employed. The study emphasizes the importance of context, specifically the need for selecting measures that are meaningful to higher education when higher education-related mobility is under investigation.

Study III uses a gender perspective to examine Swedish tertiary educated individuals of rural origins who return to rural areas after higher education. Gender-divided binary logistic regression is used to examine the relationship of social space and destination after higher education. Findings from this study indicate that although there are social space characteristics common to men and women that influence their probability of returning to rural areas, there are gender differences in the degree of influence for many of these characteristics.

Finally, the integrated discussion examines the reciprocal nature of geographical mobility and social space, which is an underlying theme in the three studies. Specifically, this discussion is based on the premise that mobility after higher education influences and is influenced by social space. Each of the perspectives used in the three studies (i.e. European, spatial, and gender) are reflected upon in relation to this reciprocal relationship.

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## Preface

“Wow, you went far for a Sumner girl!” These simple words from a hairdresser during my first trip home to Sumner, Washington, USA after living in Europe for three years caused me to pause. Never before had I considered moving abroad as something that people from my hometown just didn’t do. Was I really *that* different from other “Sumner girls?” What happened that changed the direction of my life, at least geographically, to be something so different? That last question is easy to answer.

Higher education happened. Higher education changed the (geographical) course of my life; there is no denying it. From my hometown of Sumner, where you can still get a feel of small town America with its family-run farms and cafes, I began my higher education journey at a community college a 45-minute drive away. There I was introduced to people from many different cultures and walks of life, and at 16 years old I got my first taste of the independence that comes with adulthood. I was smitten with higher education.

After two years I moved a 5-hour drive east to the Palouse, a largely agricultural area but also home to Washington State University, which is where I earned my bachelor degree. As an undergraduate, I struggled with deciding on a career path. I really just wanted to stay and work in higher education. Thankfully I had a supervisor in one of my student jobs who was working toward a PhD in higher education and told me I could do just that. I had no idea there were whole degree programs specifically geared toward jobs in higher education!

From there I moved to Salt Lake City, Utah to attend a practice-based master program in higher education administration at the University of Utah, and afterwards I moved further South to Flagstaff, Arizona where I started a job at Northern Arizona University. Higher education was taking me to places I had never before considered moving, and just a short couple years after settling into life in northern Arizona I found myself moving again for higher education.

This time higher education took me to Norway, Finland, and Portugal. All were countries where I attended courses for a research-based master program in higher education. Through my own experiences as a student and administrator in higher education, an interest in higher education as a research

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area gradually grew. This master program enabled me to explore this interest from an international perspective.

This background reveals some of my personal experiences with geographical mobility in relation to higher education, in terms of entering higher education, transitioning to studies at advanced levels, and transitioning to the labor market. In moving to many different cities and countries for studies or work in higher education, I began to reflect on the connection between higher education and geographical mobility. I had met many people who, like me, were highly mobile, but I had also met many people who were not. I found it curious how people got from where they started to where they were.

And now, after several moves and spending half my life in higher education, I continue my journey in Sweden exploring the connection between higher education and geographical mobility through research.

# Chapter 1: Introduction

Space and education is a growing area of interdisciplinary research and is the research area to which this dissertation<sup>1</sup> contributes. Research on space and education has expanded since the beginning of the twenty-first century (Holloway, Hubbard, Jöns, & Primlott-Wilson, 2010) and is primarily composed of contributions from human geographers and educationalists (Holloway & Jöns, 2012; Waters, 2016). This influx of research relating space to education has been referred to as a “spatial turn” in educational research (Ferrare & Apple, 2010). Conversely, an “educational turn” has marked an increased interest in educational issues among geographers (Waters, 2016).

Several key themes have emerged in research on space and education. One theme is the role of space in educational access, aspirations, and participation (eg. Allen & Hollingworth, 2013; Donnelly & Evans, 2016; Evans, 2017). A second theme is how space relates to differences in learning (e.g. Bæck, 2016; Hansen & Gustafsson, 2016), identity development (e.g. Holton, 2015a; Holton, 2015b; Reay, Crozier, & Clayton, 2010), and student engagement (e.g. Brooks, Byford, & Sela, 2016). A further theme is that of differing employability and career trajectories in geographical contexts (e.g. Buenstorf, Geissler, & Krabel, 2016; Evans, 2016). Finally, a fourth theme is that of geographical mobility<sup>2</sup>, which has many subcategories unto its own, including national and international student mobility (e.g. Bjerke & Mellander, 2016; Findlay, King, Smith, Geddes, & Skeldon, 2012; Lindgren & Lundahl, 2010), mobility of academics (e.g. Musselin, 2004), mobility of educational policies (e.g. Gulson et. al., 2017), and the influence of mobility and higher education institutions on regional innovation and economic development (e.g. Faggian, Rajbhandari, & Dotzel, 2017; Santoalha, Biscaia, & Teixeira, 2017).

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<sup>1</sup> This dissertation was developed within the project titled “Gender and class perspectives on students’ choice of higher education institutions and graduates’ choice of job location,” which was initiated in 2012 and supported by the Swedish Research Council.

<sup>2</sup> Some research has even claimed a “mobility turn” in education (e.g. Landri & Neumann, 2014).



## Research Questions and Aims

This dissertation focuses specifically on geographical mobility of the tertiary educated<sup>3</sup> at the national level as opposed to the international level, of which the latter has been growing in precedence in educational research (Solimano, 2008). The specific aim of this dissertation is to examine the mobility propensity and destinations of tertiary educated individuals after higher education from an education and social space perspective<sup>4</sup>. Most current understandings of these mobility patterns are framed around economic perspectives that focus on the influence of labor markets or regional amenities (Niedomysl, 2008; Niedomysl & Hansen, 2010). An educationally oriented social space perspective is fundamental to gaining a more holistic understanding of the complexity surrounding the mobility of tertiary educated individuals from higher education to employment.

Of underlying significance in this dissertation is the reciprocal nature of social (space) positions and geographical mobility (i.e. how mobility influences and is influenced by social space) (Manderscheid, 2009a; 2009b). This underlying theme forms the premise for the integrated discussion. This discussion on the reciprocity of social space and geographical mobility is guided by two questions.

- 1) How does social space influence mobility from higher education among tertiary educated individuals?
- 2) How is the social space of tertiary educated individuals influenced by mobility from higher education?

In addition to the integrated discussion, this dissertation consists of three complimentary studies. Each study approaches social space and mobility from different perspectives.

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<sup>3</sup> Derivations of the terms “higher education” and “tertiary education” are used interchangeably to denote education at ISCED levels 5 to 7 (ISCED, 2012).

<sup>4</sup> The concept “social space” originates from geography and has been conceived from a myriad of different perspectives. However, the conceptualization of social space used in this dissertation has a more educational starting point compared to other conceptualizations of the term.

## **European Perspective (Study I)**

The aim of the first study is to review a sample of current research on geographical mobility of the tertiary educated in Europe and to introduce “social space” as a concept for facilitating a relational interpretation of this mobility. The reason for introducing social space is to discuss an alternative perspective to economic perspectives, such as human capital theory (Becker, 1994), which dominate research on mobility of the tertiary educated (Niedomysl, 2008; Niedomysl & Hansen, 2010). The 18 peer-reviewed articles included in this study were published in the English language between 2000 and 2014 and were obtained from social science databases available through the University of Gothenburg libraries. The main questions addressed in this study are 1) What factors are deemed most influential to the destinations and mobility propensities of the tertiary educated in the European context? and 2) What can the concept “social space” contribute to the interpretation of these factors?

## **Spatial Perspective (Study II)**

This study uses higher education-related mobility (i.e. geographical moves to and from higher education institutions for study purposes) to exemplify the importance of context when operationalizing the concept “mobility.” The method in which mobility of the tertiary educated is usually measured is based on administrative boundaries, functional region boundaries, or distance that has no real relevance to the context of higher education-related mobility (Niedomysl & Fransson, 2014). In this study, measures of mobility that account for the spatial arrangement of higher education was developed and analyzed.

This study operationalizes “mobility” as a dichotomous geographical concept representing “mobility” or “no mobility.” Then changes in the influence of characteristics representative of individuals’ positions in social space on the probability of mobility were analyzed when “mobility” was operationalized differently, using common measures of mobility and the measures developed in relation to the spatial arrangement of higher education. Three main questions are addressed in this study – 1) How does mobility frequency to and from higher education change when “mobility” is operationalized differently? 2) How are multivariate relationships influenced when mobility is operationalized differently? and 3) What is the most

appropriate operationalization of mobility to and from higher education from an educational perspective?

### **Gender Perspective (Study III)**

The aim of the third study is to examine the demographic characteristics and economic and cultural resources (i.e. social space) that have the greatest influence on Swedish tertiary educated individuals returning to rural areas after higher education. Furthermore, this study has a particular focus on how gender mediates the influence of social space on returning to rural areas. Examining gender differences is important because gender-divided analyses are uncommon in this research area (Faggian et. al., 2017), and Sweden has a gender-divided labor market (SOU 2004:43). The overarching question is “How does the influence of social space on a rural return after higher education differ between tertiary educated men and women of rural origin?” Addressing this question is important because there is only a small amount of knowledge on the characteristics of tertiary educated individuals who return to rural areas (Bjerke & Mellander, 2016), and this knowledge can be used by municipal governments to coordinate place-marketing campaigns to attract these individuals back to rural areas.

### **Importance of National Geographical Mobility**

Research on the geographical mobility of the tertiary educated at the national level offers important insight on the outcomes of higher education in terms of the national distribution of knowledge. Understanding this distribution of knowledge is important for regional planning and development purposes because conglomerations of tertiary educated individuals have been identified as important for the growth and competitiveness of regional economies (Mellander & Florida, 2014; Hansen & Niedomysl, 2009). The reason this is important for educational research is because higher education institutions are increasingly expected to take an active role in encouraging growth in the regions where they are geographically located, and Sweden is no exception (Hudson, 2006).

In Sweden, higher education institutions are expected to positively influence patterns of geographical mobility by attracting and retaining tertiary educated individuals in the labor markets near the institutions they attended (SOU 2000:87). The patterns of geographical mobility to and from higher

education institutions are connected to how well the educational offerings at these institutions couple with their surrounding labor markets. Depending on the extent those higher education institutions attract and retain individuals in their surrounding regions implies different institutions have larger or smaller roles in serving the educational needs of regions. Consequently, researching the geographical mobility of tertiary educated individuals gives some indication as to how well higher education institutions fulfill their regional purpose of providing education that meets the needs of regional labor markets.

## Rationale for Spatial Perspectives in Education

Given that spatial perspectives are increasingly employed outside their traditional disciplinary confine of geography and incorporated into educational research, the question of why engaging with space is fundamentally interesting and important to educational research arises. This question is particularly relevant for this dissertation because the focus is on an inherently geographical topic – national geographical mobility from higher education.

One idea why incorporating space in educational research may have gained increased interest from educational researchers is due to the growth of neoliberalism and globalization in education, which forced spatial issues to the forefront of the educational research agenda (Gulson & Symes, 2007). For example, the rise of neoliberal policies in education underscored differentiating spatial influences on unequal educational provision (e.g. how the geographical distribution of schools is related to “choice”) (Andersson, Malmberg, & Östh, 2012; Fjellman, 2017), thus forcing educational researchers to consider the influence of space. A related development is that of globalization, where space was brought to the front of education through the notion of mobility – of both policies and people (Gulson & Symes, 2007). This also may be why educational researchers have more often focused on international mobility (Solimano, 2008) compared to national mobility.

Through engaging with issues of space such as these, the fundamental importance of incorporating spatial perspectives in educational research comes to light. That is, space enables a more sophisticated understanding of education and ignoring space results in narrow and flawed understandings of educational contexts, policies, practices, and outcomes (Gulson & Symes,

2007). For example, ignoring the influence of space in terms of an individual's place of origin on their destination after higher education would result in a flawed picture of mobility because an individual's origin relates to their destination (see Table 1 in Haley, 2017b). In addition, space represents a form of power and is represented in differentiating power relationships across space (Robertson, 2010; Gulson & Symes, 2007). With regards to education, space can be used to understand inequalities in educational opportunities and outcomes. For example, individuals originating from northern Sweden are disadvantaged in their access to higher education because there are few higher education institutions while individuals in southern Sweden have many options in their vicinity (see Appendix A). Recognition of the importance of spatial perspectives in education is evidenced by calls from educational researchers for space to have a permanent place in educational research as a new and accepted framework, rather than just viewing space as a trendy topic of research (Gulson & Symes, 2007; Robertson, 2010).

## Chapter 2: Background

The purpose of this chapter is twofold – to describe the spatial and geographical arrangements, particularly in relation to higher education and the labor market, and to define higher education-related mobility. The chapter begins with a description of the spatial arrangement of Swedish higher education (i.e. the geographical distribution of higher education institutions and their characteristics). The description of the spatial arrangement of higher education contributes further insight for understanding the mobility propensities and destinations of tertiary educated individuals in Sweden. Next, the relationship of the spatial arrangement of higher education and the labor market is described. For instance, the geographical distribution of higher education institutions indicates the starting points for mobility upon ending higher education study and the arrangement of the labor market indicates the possible geographical locations from which individuals can enter employment. Therefore, the spatial arrangement of higher education in conjunction with the arrangement of the labor market influences possible mobility trajectories from higher education. Then a brief description of different types of geographical divisions of Sweden is given. Finally, the concept of geographical mobility, and specifically higher education-related mobility, is defined and elaborated.

### The Spatial Arrangement of Swedish Higher Education

The geographical distribution of higher education institutions (e.g. locations) and their educational offerings (e.g. fields of study, degree offerings) constitute the spatial arrangement of higher education (Haley, 2017a). The spatial arrangement of higher education is important to the geographical mobility of the tertiary educated because the arrangement limits the possible mobility constellations to and from higher education. For example, the arrangement of higher education limits students' mobility trajectories when entering higher education and it designates their starting point for any

potential geographical mobility upon ending higher education. Therefore, an overview of the arrangement of Swedish higher education is necessary.

The present day arrangement of Swedish higher education (see Appendix A)<sup>5</sup> has largely been shaped by a series of reforms. Reforms in the higher education system increased at the end of the 1960s with the introduction and expansion of program offerings within the philosophy faculties. Then in the frame of a higher education reform in 1977, 17 new university colleges were established to complement the existing universities and vocationally oriented institutions. These new, small and medium sized institutions were established to primarily offer undergraduate education. Educational offerings and student volume at the new university colleges were slow to develop at the beginning, but as individual and community interest in higher education expanded, the role of these institutions in the higher education system also grew. The development of these institutions in the 1970s was primarily based on moving teacher education, social work, and nursing programs from post-upper secondary schools to higher education. In the 1980s, the university colleges were further expanded when the engineering and technical programs were moved to higher education from the post-upper secondary schools (Högskoleverket, 1998). Since this time, some university colleges have been granted the ability to award doctoral degrees and status as “new universities.”

Acknowledging the distinctions among the different higher education institutions and their educational offerings is important because they relate to the perceived prestige of these higher education institutions in society. Even though Sweden officially has a unitary higher education system according to the 1993 Higher Education Act (SFS, 1993: 100), these systemic differences in Swedish higher education support the notion that the system may actually be binary (Askling, 2012; Kyvik, 2004) or even more complex (Holmberg & Hallonsten, 2015). Therefore, not only does the spatial arrangement of higher education limit possible mobility constellations through the geographical distribution of higher education institutions, but the arrangement also facilitates geographical mobility to higher education by appealing to different preferences among students (e.g. preferences of field of study, program, or institutional reputation). For instance, even though a higher education institution might be geographically accessible to a student, such that they are

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<sup>5</sup> Appendix A shows all higher education institutions in Sweden. Only the largest institutions were included in the analyses that are part of this dissertation.

not required to be mobile in order to participate in higher education, they may prefer an educational program outside those offered at their local institution or prefer to attend a more reputable institution, thus prompting geographical mobility when entering higher education.

Distinctions among the higher education institutions also might influence geographical mobility from higher education. For example, employers may have different perceptions of tertiary educated individuals who pursued degrees in the same field of study but at different institutions with differing reputations. Therefore, distinctions in prestige among the higher education institutions may limit the locations within which tertiary educated individuals may enter employment.

Following the reforms the number of students increased in the late 1980s through 1990s. Prior to this time the number of students stayed relatively unchanged. At the universities, there was a 55% increase in students and at the new and smaller institutions the numbers increased almost threefold. This expansion of the higher education system meant that higher education became more geographically accessible outside traditional university cities (Högskoleverket, 1998).

Since the reform, one could say that the geographical distribution of study opportunities in Sweden with respect to promoting equality has been successful. On the other hand, reducing the gender and social stratification of students within academic programs and specializations still has room for improvement (Berggren, 2008). Naturally this also relates to social stratification within the labor market, which implicates gendered geographical mobility into the labor market.

## The Spatial Arrangement of the Labor Market

Features of the labor market, such as regional unemployment rates and the size and distribution of industries, are often included in studies on geographical mobility of the tertiary educated conducted by human geographers and economists. Although some research has shown important relationships between features of the labor market and mobility of the tertiary educated (e.g. Venhorst, van Dijk, & van Wissen, 2011; Faggian, McCann, & Sheppard, 2007), other studies have speculated that these features may be less important to the geographical mobility decisions of the tertiary educated than the general population because typically the tertiary educated have lower



unemployment propensities (Faggian, McCann, & Sheppard, 2006). Moreover much of the focus of this earlier research lies in how these labor market features influence the mobility of the tertiary educated or, conversely, how their mobility influences these labor market features within regions (e.g. regional development, regional winners and losers).

Alternatively, since this dissertation is written from an educational perspective, the spatial arrangement of higher education is primarily emphasized while the labor market is of secondary importance. The spatial arrangement of Swedish higher education in combination with the spatial arrangement of the labor market has implications for where the tertiary educated enter the labor market upon ending their studies. For instance, Study II (Table 1) indicates that the medicine / odontology, fine arts, and forestry / agriculture fields of study are not ubiquitously distributed across Swedish higher education institutions (i.e. programs offered within these fields of study are only located at select institutions). This distribution suggests that students who pursue these fields of study may need to be mobile in order to find appropriate employment (e.g. employment that matches their level of education and field of study). The reason for needing to be mobile is due to the likelihood of there not being enough appropriate employment opportunities in the areas surrounding the higher education institutions offering these fields of study. Thus, the likelihood of finding appropriate employment in these areas for all students who studied in these fields is likely to be slim. Consequently, the spatial arrangement of higher education in combination with the arrangement of the labor market influences opportunities for the tertiary educated to obtain employment appropriate to their education and as such may prompt geographical mobility in order to obtain appropriate employment.

Evidence of the relationship between employability and geographical mobility has taken root both in European level policy initiatives, as well as in Swedish policies. At the European level, for instance, the European Commission has emphasized mobility within and between countries as a way for individuals to take responsibility for their employability (Mitchell, 2006; Bonin et al., 2008). In Sweden, policy proposals have suggested mobility as a method for reducing economic problems, such as unemployment (SOU 2006:102). For the tertiary educated, moving to obtain appropriate employment may be especially pertinent in order to recoup lost time and income on the labor market due to participation in higher education.

## Geographical Divisions of Sweden

Three different types of geographical divisions or units are referred to in this dissertation: municipalities, counties, and labor market areas. Municipalities and counties are considered to be administrative regions while labor market areas are considered functional regions. As administrative regions, municipalities and counties were created for purposes of public administration. For example, municipalities have elected local governments, taxation rights, and responsibilities for various social services, including operating school and health care facilities (Niedomysl & Fransson, 2014). Counties also have some administrative functions such as taxation rights and have responsibility over some public services. Sweden has 290 municipalities and 21 counties (Statistics Sweden, 2011). For maps illustrating the municipal and county divisions, see Appendix B and Appendix C respectively.

As functional regions, labor market areas were constructed to measure a specific, functional purpose. In Sweden, labor market areas are constructed by Statistics Sweden and are based on commuting patterns between municipalities that is related to employment. In the 2008 division of labor market areas, which is used in this dissertation, there are 75 different areas (Statistics Sweden, 2010; 2011). The labor market area divisions are illustrated in Appendix D.

## The “Mobility” Concept

“Mobility” is the preferred term to describe the geographical movements of individuals to and from higher education in this dissertation. However, the term “migration” is often used alone or interchangeably with the term “mobility” in current research. Identifying this movement as a migration has connotations of a long-distance, long-term move while mobility is often conceived as shorter movements in terms of duration and distance (e.g. commuting between cities). There is a tendency in research on the movement of tertiary educated individuals into the labor market towards the use of “migration” to define this movement. However, young, tertiary educated individuals often move several times, especially at the beginning of their careers (Lemistre & Magrini, 2011). In addition, this movement can be part of an educational mobility cycle with individuals moving to attend higher education and returning to their home regions upon ending their studies. This

cyclical movement is one reason the term “mobility” is preferred in this dissertation.

In recent years, the social sciences have experienced a “mobilities turn” where distinctions between terms such as mobility, movement, and migration have been clarified. “Movement” has been argued to actually be mobility extracted from power contexts. While movement is without meaning, history, and ideology, mobility is a socially produced motion (Creswell, 2006). Therefore, using the term “mobility” to describe movement of the tertiary educated from higher education institutions implies that these movements are intertwined with sociality and social stratification.

The “mobilities turn” was further elaborated by Sheller and Urry (2006) with their “mobilities paradigm.” Their paradigm consists of five mobility forms: corporeal mobility, the movement of material objects, imaginative travel, virtual travel, and communicative travel (King, 2012). Corporeal mobility refers to the mobility of people in daily life, such as through commuting, as well as once-in-a-lifetime, long-distance moves. Therefore, migration and moves related to higher education is a type of mobility, which falls under the corporeal mobility category. The mobilities paradigm challenges traditional sedentary and state-centered perspectives on society and education, which treats stability and immobility as normal (Sheller & Urry, 2006). The mobilities paradigm has also expanded the definition of mobility to include the movement of ideas and policies in addition to the movement of people. For example, “mobility” can encompass the movement of individuals in the educational sphere, such as is the focus of this dissertation, as well as shared (non-local) educational policies, ideas, and incentives (Landri & Neumann, 2014).

In relation to higher education, the main focus of the mobilities paradigm is on how the mobility and immobility of people, ideas, and objects related to education is economically, symbolically, and materially produced and reproduced (Landri & Neumann, 2014). For example, the spatial arrangement of higher education together with an individual’s social position imposes perceptions of geographical mobility and immobility. The combination of these aspects reinforces the immobility of some individuals while enhancing opportunities for mobility among others. This corresponds with Cattán’s (2012) description of mobility tendencies – “Being mobile is not just about geographical space, but also, and probably above all, about social space” (p. 86). Gender, social class, and ethnicity influence the way individuals are

mobile (eg. in terms of destination, frequency, and speed) (Creswell & Uteng, 2012).

With regards to education, the mobilities paradigm offers a perspective through which to understand the interconnections between the spatiality of education and the (re)production of inequalities as they relate to education-related mobilities (Landri & Neumann, 2014). For these reasons, “mobility” is most often used when referring to the geographical movements of the tertiary educated from higher education in this dissertation, with exception of the first study. In the first study, “migration” is used since this term reflects the commonly used terminology in the literature that was reviewed for the study. Therefore, the decision was made to be consistent with the literature rather than impose a perspective that was not explicitly referred to in the literature.

## Higher Education-Related Mobility

Higher education-related mobility refers to the two points in time when young people are most likely to be geographically mobile - when entering higher education and when leaving higher education. Mobility of the tertiary educated when leaving higher education is sometimes viewed as a subset of youth mobility with some students taking a break or “gap year” after their studies and before beginning employment, for example (King, 2012). However, higher education-related mobility has some clear distinctions from youth mobility and other types of geographical mobility.

The distinguishing aspect of geographical mobility upon entering higher education is the undertaking of formal education as the primary purpose for mobility (Raghuram, 2013). However, the distinction for individuals who have recently ended their higher education studies is their motivation to find a job that is reflective of their recently achieved education. Therefore, when many students end their higher education studies, their mobility decisions are tied to both the spatial arrangement of higher education and the arrangement of the labor market, as well as their own demographic backgrounds and cultural and economic resources.

### **Mobility of the Swedish Tertiary Educated**

In Sweden, research has shown that newly admitted higher education students tend to move to areas with a high people climate (e.g. areas that are diverse, open-minded, and overall welcoming to different populations) (Hansen &

Niedomysl, 2009). Large cities usually qualify as areas with a high people climate. However, if students move when they end their studies, the students tend to move to areas with a lower people climate (Hansen & Niedomysl, 2009). This idea is in contrast with findings from the Swedish Council for Higher Education, which show that tertiary educated individuals move to Sweden's largest city areas after higher education (Högskoleverket, 2011). Furthermore, the counties where the tertiary educated most often move to after higher education include Stockholm, Uppsala, Skåne, and Västra Götalands counties (Högskoleverket, 2011). The Swedish Council for Higher Education speculates that this might be in great part to larger regional labor markets, better educational opportunities, and social factors appealing to young adults.

These contrasting conclusions may stem from Florida (2002) who theorized on the relative attraction of people climate in the United States. Hansen and Niedomysl (2009) employed Florida's theory even though there are differences in contextual factors between the United States and Sweden. Florida's theory might not be applicable in Sweden. One reason the notion of people climate may not be applicable in Sweden is because there are stronger regional hierarchies in Sweden than in the United States. Since there are more major cities with diverse and large labor markets in the United States for individuals to choose from, people climate may be a more an important factor in an individual's mobility and destination after higher education. However, this is not the case in Sweden. Hansen and Niedomysl (2009) also conducted a survey, which supported this notion that people climate may be less influential in Sweden. The results showed geographical mobility and destination corresponded more with employment opportunities and social factors. The survey respondents rarely mentioned factors related to people climate (Hansen & Niedomysl, 2009).

## Chapter 3: Theoretical Framework

Social space forms the theoretical basis in this dissertation. This chapter introduces the concept of social space and outlines and contrasts the contributions of a social space perspective with dominant theoretical perspectives for understanding geographical mobility of the tertiary educated. The operationalization of social space in Studies II and III is also discussed.

### Social Space

Social space is part of a broader “spatial turn” in educational research, as evidenced in the programs of educational research conferences and in special issues of educational journals that have focused on critical geography in relation to education (Middleton, 2014). This spatial turn in educational research has been characterized by an increased consideration of the spatial contingencies of education and learning (Waters, 2016). Specifically, education influences students unevenly because the influence of education is spatially contingent, both in terms of geographical and social space.

While educational research from a historical perspective is a common and long established part of the field, educational geography (its spatial equivalent) is underdeveloped. The focus on historical perspectives may be due to a tradition of historical approaches dominating geographical approaches in social theory. The idea that change is more responsive to time than space forms the basis for focusing on time rather than space. However, part of the move towards socio-spatial theories in education is the notion that space without time is as unlikely as time without space (Gulson & Symes, 2007) (i.e. space cannot be understood without taking time into account and time cannot be understood outside spatial contexts).

Social space has been conceived by a number of different theorists, such as Harvey (2009), Lefebvre (1991), Massey (1994), and Sayer (1992; 2000), from varying philosophical perspectives, including structuralism, genealogy, Marxism, and realism (Shields, 1991). Social space, as employed in this dissertation, is based on Pierre Bourdieu’s conceptualization, which has its theoretical starting point in “*constructivist structuralism* or *structuralist constructivism*” (Bourdieu, 1989, p. 14). By structuralism Bourdieu (1989) means

there are objective structures in the social world that guide and constrain an individual's practices and representations. With regards to constructivism, Bourdieu means that social origins form from "schemes of perception, thought, and action" (i.e. habitus) as well as social structures and particularly of "fields and of groups" (Bourdieu, 1989, p. 14).

## Bourdieu's Conceptualization of Social Space

Unlike many conceptualizations of social space from geographers, Bourdieu's concept of social space does not center on geographical or physical space (Creswell, 2002). Therefore, Bourdieu's work is often unrecognized in many texts and research by geographers. Instead Bourdieu (1985; 1984; 1986, 1989) focuses on the relationship of social and geographical space in terms of how groups form and take shape in society and to explore social distance and proximity (Reed-Danahay, 2015). In addition, Bourdieu often connects social space to examples from education. Therefore, social space per Bourdieu was selected as the theoretical starting point for this dissertation.

Among Bourdieu's theoretical contributions, social science researchers have often emphasized "social field" rather than "social space" and differences between the two concepts are often overlooked (Reed-Danahay, 2015). "Field" refers to the arenas where power relations are expressed and reproduced, such as within academia (Bourdieu, 1984) or the labor market (Bourdieu, 2001). Important to the concept "field" is that the forms of capital have different values within different fields. To illustrate, Bourdieu (1984) states that "...in a particular field, the properties, internalized in dispositions or objectified in economic or cultural goods, which are attached to agents are not all simultaneously operative; the specific logic of the field determines those which are valid in this market, which are pertinent and active in the game in question..." (p. 113).

Social space, on the other hand, is understood by Bourdieu as more of a social structure. According to Bourdieu, individuals are distributed in social space in accordance with their accumulated capital (i.e. resources) (Bourdieu, 1985; 1986). Specifically, individuals are distributed in social space according to the amount of capital they possess as well as the structure or composition of this capital (Bourdieu, 1989). Furthermore, Bourdieu understands space as relational, meaning that an individual's position in social space is dependent on their relation to other individuals. The primary forms of capital that

constitute Bourdieu's social space are economic and cultural capital because he considers these as fundamental differences between individuals that cannot be ignored (Bourdieu, 1985).

Individuals develop certain dispositions, tastes, and points of view, which are representative of their position in social space (Bourdieu, 1996). These different preferences and perspectives have been termed "habitus" by Bourdieu. Habitus implies a sense of place among individuals as well as a sense for others' place (Bourdieu, 1989). According to Bourdieu (1989), "...through habitus, we have a world of common sense, a world that seems self-evident" (p. 19). Habitus is acquired from early childhood and onwards, and the orientations and dispositions of habitus have differing values in social space (Reed-Danahay, 2015). Thus, habitus, which is formed from the amount and composition of an individual's capital, is reflective of an individual's position in social space.

### **Gendered Social Space**

In addition to economic and cultural capital positioning an individual in social space, Bourdieu suggests the possibility of organizing individuals in accordance to other principles of division such as gender (Bourdieu, 2001). However, Bourdieu (1984; 2001) suggests these other principles of division are secondary to the influence of economic and cultural capital on an individual's position in social space. One reason why Bourdieu may view gender, in particular, as secondary is because gender has the appearance of being universal and natural (e.g. gendered fields of study and gendered occupations) (McCall, 1992). According to Bourdieu (2001), gender divisions appear natural because of biological difference, which hinders the acknowledgement of gender divisions being social constructions. As a result, gender can be perceived to function as a "mediating dimension" of social space, suggesting that economic and cultural capital is gendered (McCall, 1992, p. 842)<sup>6</sup>. Therefore, gender, in combination with economic and cultural capital, can be viewed as influencing and modifying each other in different social contexts (Moi, 1991).

Bourdieu (2001) also claims that social space organized in a gender-divided manner facilitates perceptions of how individuals ought to behave and construct their lives in accordance with their gender. That is, while economic

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<sup>6</sup> A contrasting perspective is to view gender as a form of capital (see McCall, 1992 for an example).



and cultural capital shapes an individual's habitus (Bourdieu, 1996), habitus is also gendered (Skeggs, 1997). For example, in *Masculine Domination* Bourdieu intersects economic and cultural capital and the female experience in his examples of workplace harassment of women in job situations at opposing ends of the career hierarchy (ie. a production line worker versus a managing director). He summarizes the impact of gender on social space as follows: "...whatever their position in social space, women have in common the fact that they are separated from men by a negative symbolic coefficient, like skin colour for blacks, or any other sign of membership of a stigmatized group, negatively affects everything that they are and do, and which is the source of a systematic set of homologous differences" (Bourdieu, 2001, p. 93). This statement can be interpreted such that even though women from all backgrounds may share the experience of being dominated by men, they are still separated from each other by economic and cultural differences, which influence their approaches to enduring masculine domination.

In the context of geographical mobility among the tertiary educated, one could infer that while an individual's social position in terms of economic and cultural capital will certainly influence their opportunities, knowledge, and perceptions of mobility and destinations after higher education, their decisions will also be gendered. For example, having children has a greater influence on women's mobility than men's mobility (see Table 3 in Haley, 2017b) because women have traditionally been in domestic and caring roles and may feel a stronger pull to take these aspects of their lives into account when making a decision to be mobile.

### **Geographical Space and Social Space**

An individual's position in social space is often closely linked to their position in geographical space. The construction of social space implies that people with similar positions in social space, share similar experiences, interests, and dispositions, so they are likely to behave similarly. With regard to geographical mobility, Bourdieu implies that the closer individuals are located in geographical space, the closer they are in social space, meaning they share more commonalities. Thus, individuals who are close together in social space have a tendency to congregate in geographical space, by choice or out of necessity (Bourdieu, 1989).

In essence, an individual's position in geographical space is reified social space (Bourdieu, 1996). This implies that an individual's position in social space is more or less translated into their position in geographical space. Since the places or locations that individuals inhabit are representative of their social space, individuals of differing social spaces will reside in geographical settings of differing values. For instance, individuals with higher incomes may live in more attractive and favored areas (Reed-Danahay, 2015). Therefore, according to Bourdieu (1985), many differences between individuals that may be attributed to geographical space (e.g. access to higher education in urban areas compared to rural areas) are actually the influence of distance in social space (i.e. unequal distributions of resources in geographical space).

An individual's position in geographical space, particularly during higher education, may also reinforce or change their position in social space. For instance, since universities and university colleges in Sweden are perceived as offering different types of education (Askling, 2012; Holmberg & Hallonsten, 2015; Kyvik, 2004), which relate to varying degrees of prestige, the type of institution a student attends and its geographical position has implications for a student's social space position upon ending their studies. This occurs because individuals are characterized by the place they are located more or less permanently, such as their place of residence, as well as temporary places (Bourdieu, 1996) such as the higher education institution they attend. In terms of mobility from higher education, individuals linked in social space may express similar mobility patterns not just because they share similar characteristics but also because they seek similar locations where they may reap the most labor market benefits.

## Operationalization of Social Space

Social space is operationalized in Studies II and III in terms of characteristics that constitute an individual's economic and cultural capital. This capital can be either inherited through one's parents or it can be acquired by the individuals themselves (Bourdieu, 1986). Therefore, some variables used to operationalize social space in Studies II and III pertain directly to an individual and others to their parents.

To operationalize economic capital, parental income was used. Parental income is viewed as an inherited capital and acceptable for examining the population studied in this dissertation because young people are primarily

located in social space through the capital of their parents (Melldahl & Börjesson, 2015). While there are certainly other characteristics that reflect an individual's economic capital (e.g. property ownership of the individual or their parents), the dissertation was restricted to a limited set of data relating to an individual's personal economy.

Cultural capital is operationalized through an individual's educational capital, a sub-form of cultural capital (Bourdieu, 1984). Therefore, in Studies II and III an individual's cultural capital is primarily constituted by their educational trajectory (i.e. their field of study, the type of higher education institution they attended, the geographical location of the higher education institution, and their upper secondary school grades) but also includes the level of their parents' education. Parental education provides some indication of the cultural capital an individual was exposed to during their youth and the knowledge that may be available to help them capitalize on their education (e.g. knowledge on the most opportune places to enter the labor market). Study location is viewed as representing cultural capital since it symbolizes acquired knowledge of a place and expanded social connections that could influence an individual's social and geographical mobility.

Bourdieu (1984) focused on the importance of level of education to operationalize educational capital. However, the reason for including several different variables for characterizing an individual's educational capital rather than only considering their level of education is because educational capital can no longer be reduced to just level of education due to the massification of higher education. Therefore, it is necessary to distinguish between different types of educational pathways (Börjesson, Broady, Le Roux, Lidegran, & Palme, 2016) such as different higher education institutions and fields of study as these represent varying levels of prestige.

Other characteristics of individuals that may influence their position in social space and that can influence their geographical mobility were also included as supplementary demographic variables in Studies II and III. Bourdieu (1984) identified gender, age, and geographical location as the most important secondary characteristics to economic and cultural capital. Therefore, these characteristics were operationalized by an individual's sex / gender, their age at the time they ended their higher education studies, and their origin location. In addition to these characteristics, a variable characterizing whether or not an individual lived in a family with a minor at the time they ended their higher education studies was included because this is

likely to have influenced their geographical mobility from higher education (see Haley, 2016, p. 485).

## Dominant Theoretical Perspectives

While social space is employed in this dissertation to understand the mobility of the tertiary educated, research in this area has traditionally been guided by economic perspectives such as human capital theory (Becker, 1994) and spatial job-search models. Under human capital theory, the assumption is that individuals become mobile when the benefits of mobility outweigh the costs. This theory suggests that those with more education are more likely to be mobile in order to reap the greatest returns from their educational investment (Branden, 2013; Wikhall, 2002). Human capital theory also suggests mobility occurs when the expected benefits of a potential destination exceed the costs associated with mobility. Because tertiary educated individuals have forsaken time on the labor market while studying and because mobility may increase returns on time and money invested in higher education, human capital theory suggests that tertiary educated individuals will be more mobile than individuals with lower education.

Spatial job-search models include theories such as dual labor market theory (Reich, Gordon, & Edwards, 1973). Dual labor market theory suggests labor opportunities are segmented into jobs that either require higher education and skills or do not. Jobs requiring higher education more often offer job security, high wages, and good career and promotion opportunities while jobs requiring less education and fewer skills are often low-paid, have limited job security, and few opportunities for promotion. Vacancies in the latter kind of jobs are primarily filled with local labor while jobs that require higher education more often target potential employees outside local labor markets.

According to this theory, jobs that demand higher education often offer better career prospects than jobs that do not demand higher education. Such prospects may help with understanding the influence of education on mobility. Mobility often functions as a way to match one's skills with a suitable employer and the pay-off from mobility could therefore be larger for individuals in sectors with good career prospects compared with other individuals. More specifically, tertiary educated individuals might not be more mobile because of their education as such, but because of the career possibilities associated with the jobs in which they work. The generally higher

income among tertiary educated individuals could also help in understanding why they are more mobile than individuals with less education (Lundholm, 2007).

These economic perspectives assume individuals are economically rational and make decisions regarding their mobility independently of other individuals. For example, human capital theory suggests the tertiary educated move from rural to urban areas (i.e. from areas with small and weak economies to areas with large and growing economies) because it would give them an economic advantage. However, not all tertiary educated individuals move to large urban areas after ending their higher education studies (see Table 1 in Haley, 2017b). There must be other factors that influence their mobility that human capital theory does not consider. Furthermore, human capital theory portrays the labor market as gender neutral while different labor market patterns among men and women are thought to be a result of biologically informed choice rather than a reflection of gender structures in the labor market (Boucher, 2016).

In the search for an alternative approach to these economic perspectives, other researchers have employed theories of place attachment to explain mobility and destination. Place attachment refers to the features of a place that serve as criterion for choosing one place over other places (Pollini, 2005). This perspective assumes individuals have “insider advantages” (i.e. geographically embedded assets) attached to certain places, such as their place of origin, that make moving to other places less advantageous (Dahl & Sorenson, 2010; Wikhall, 2002). Furthermore, attending higher education away from one’s place of origin can shift an individual’s attachment to a place.

Place attachment also corresponds with theories of place identity. Place identity refers to the relationship between people and places and the role that place has in shaping an individual’s identity and perceptions of belonging and life purpose (McAndrew, 1998). For example, when students move to attend higher education, this initial transition from home to higher education exemplifies a change in their socio-spatial context which can lead to evolving people-place relationships. While studying in higher education, students meet new people and may experience new places and situations that can lead them to gaining a new perspective on life. During this time students’ meaning of place can be re-evaluated and re-defined (Chow & Healey, 2008), which can result in evolved, multiple senses of place and belonging (Holton, 2015a). In relation to individuals from rural regions who relocated to urban regions for

higher education, they may have developed a new sense of place identity that is at odds with their place of origin. For instance, students may develop new social attachments during higher education that create a positive sense of place toward urban areas. Consequently they may no longer feel that they belong outside urban areas due to changed relationships with family and friends who stayed in their rural home regions (Gabriel, 2006; Cicognani, Menezes, & Nata, 2011). This is particularly relevant for women from rural areas that no longer feel they belong in societal environments rich with patriarchal traditions, as is common in rural areas (Rauhut & Littke, 2016). While these theories of place attachment provide an important perspective through which to understand the mobility of the tertiary educated, they require knowledge on an individual's perceptions and motivations, which are more closely tied to qualitative investigations of mobility.

## Contributions of Social Space

Bourdieu's conceptualization of social space contributes an alternative lens through which to reflect on the mobility and destinations of the tertiary educated, which contrasts with the economic perspectives prevalent in this field of research. For example, social space provides a perspective that can aid in understanding divergences in general patterns of geographical mobility, such as mobility to rural areas, which are not consistent with economic perspectives. Additionally, while economic perspectives such as human capital theory (Becker, 1994), tend to overlook gender inequalities and issues of discrimination and power (Boucher, 2016), Bourdieu's social space recognizes the mediating influences of gender (Bourdieu, 2001). Bourdieu's social space also centers on social rather than geographical space, of which the latter is more common among perspectives of social space originating within the field of geography (e.g. Lefebvre, 1991; Harvey, 2009).

While Bourdieu emphasizes "space," he does not connect space with time (e.g. temporal influences on an individual's social space). This is a clear disadvantage of Bourdieu's conceptualization of social space. However, since this dissertation does not emphasize changes over time, the advantages of Bourdieu's conceptualization of social space outweigh this limitation.



## Chapter 4: Methodology

This chapter primarily focuses on discussing the decisions made during the preparation of data used in Studies II and III. While Study I consists of a literature review, Studies II and III are empirical articles using register data (i.e. administrative data). Because the register data was originally collected for purposes other than the studies in this dissertation, a significant amount of preparation was required before it could be used. This chapter also describes the variables and methods used to examine the relationship of social space with mobility propensity and destination. Finally, limitations and validity issues are discussed.

### Data

Study I is a literature review, meaning that a summary of pre-existing analyses of data is presented. The review consists of 18 articles published between 2000 and 2014 on the topic of mobility of tertiary educated individuals. The focus is on peer-reviewed articles that were published in English and accessible through the University of Gothenburg Library. An interdisciplinary search of journals ensued in order to obtain a well-rounded understanding of the common themes in relation to geographical mobility of the tertiary educated. Searching within journals from different disciplines in the social sciences is particularly important since this topic is interdisciplinary in nature. Following an initial search of keywords in the library databases, articles were selected for inclusion in the review based on an examination of their titles and abstracts for relevance to the topic under study.

To compliment this literature review, which can be deemed distant and distorting because it encapsulates analyses of data from other researchers, (Gorard, 2012), Studies II and III use register data from the Gothenburg Educational Longitudinal Database (GOLD). Population registers such as GOLD are generally associated with Northern European countries, especially Scandinavian countries, since individuals are required to notify authorities of a change of address when they move (Bell & Brown, 2014). The use of official



data, such as register data also has a long history in the educational and social sciences (Gorard, 2012).

In Sweden, people are assigned a personal identification number, which allows them to be traced in different administrative registers. GOLD provides educational information from the ninth grade and beyond for individuals born between 1972 and 1995. This database also has information on an individual's parental education, income, occupation, civil status, and national background for example. The studies included in this dissertation analyze the total population of individuals born between 1973 and 1982 and who resided in Sweden at age 16. The most recent data is from 2012 when the population was between the ages of 29 and 38 years.

### **Ethical Considerations**

Statistics Sweden handles register data prior to allowing access to any researchers. During this process, an individual's personal identification number is replaced with a different non-identifiable number, which is then provided to the researchers. This is a precaution taken to keep an individual's identity anonymous. Due to security agreements, GOLD data is only available for the duration of a research project and only to those researchers working on the project. Additionally the data is accessed through Statistics Sweden, so only the researchers working on the project have access, and only the specific data needed to carry out the project is supplied. Furthermore, since the studies in this dissertation investigate groups rather than individuals, the data are aggregated to a degree where no individuals should become identifiable in the results. Therefore, consent claims are not usually applied for with this type of data, so approval by an ethics committee is not required.

### **Population**

In Studies II and III the "tertiary educated" born between 1973 and 1982 is the focal population. The tertiary educated are individuals who completed a minimum of 120 credits, which is equivalent to two years of full-time higher education study. This parameter is based on the minimum accumulated credits needed to obtain a higher education diploma (högskoleexamen), which is part of first-cycle (i.e. undergraduate) education, yet is different from a bachelor degree that requires 180 credits (UHR, 2013). However, tertiary educated individuals, as defined in these studies, have not necessarily been awarded a

degree. In Sweden many students do not apply for degree or diploma certificates even though they completed the necessary program requirements. This can result in individuals obtaining enough credits for the degree but not actually possessing the certificate stating they had done so. Furthermore, there is a possibility that individuals may have only studied lower division courses, thus not qualifying for a higher education credential.

Study II also examines “students.” Students are individuals who study at least 75% full-time equivalent or 45 academic credits each year. However, if students drop below 75% full-time equivalent, they no longer have “student” as their primary occupational status. The 75% full-time equivalent parameter is based on the established requirements for students to obtain a government loan for higher education studies (SFS 1999: 1395). Establishing these parameters facilitates identifying those individuals whose main activity is studying.

In Study III the tertiary educated population is further reduced to only include those individuals who originated from rural areas. An individual’s place of origin is based on their address a year before beginning higher education. The definition of “rural area” departs from a division of nine groups developed by the Swedish Association of Local Authorities and Regions (SKL, 2011). Figure 1 illustrates the population selection for Studies II and III.

## GEOGRAPHICAL MOBILITY OF THE TERTIARY EDUCATED

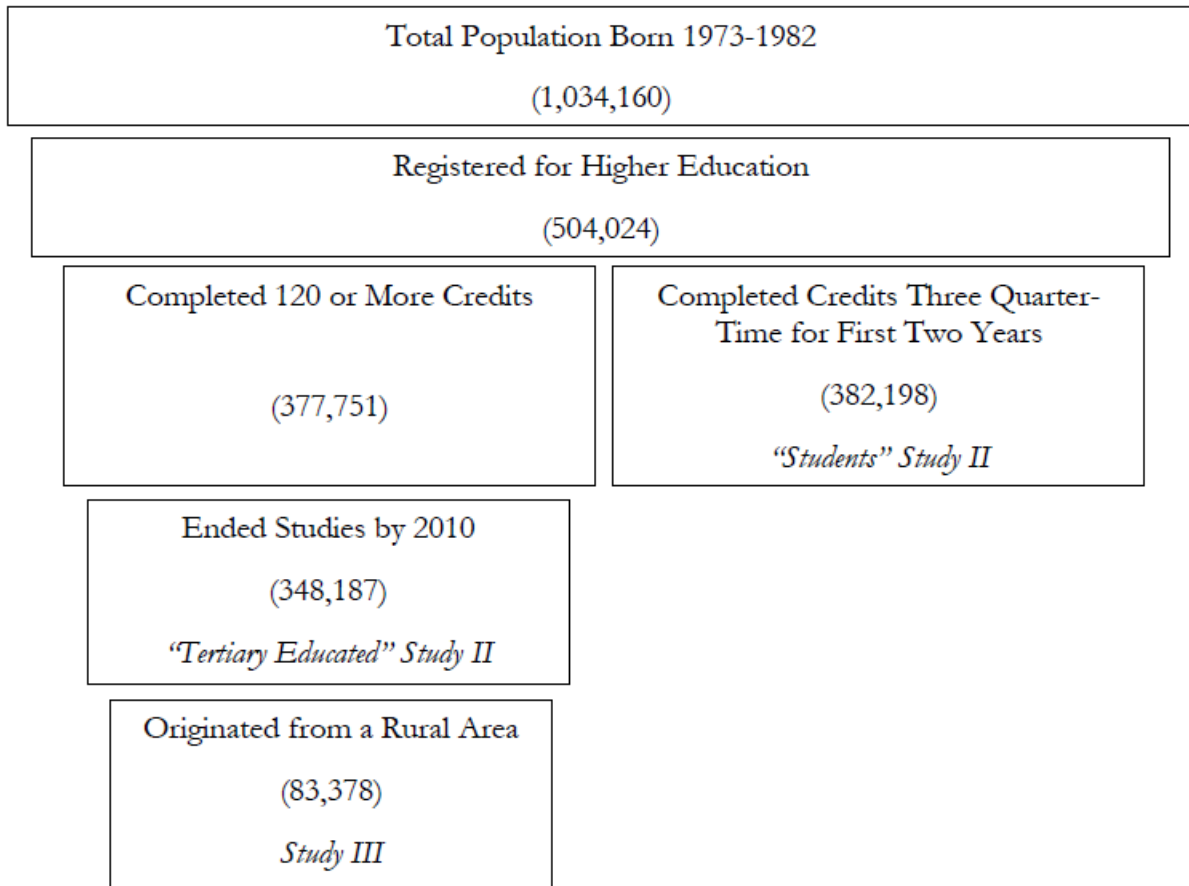


Figure 1 Population Selection

*Note: Only individuals who resided in Sweden at age 16 are included in the total population. Individuals from the total population who were missing basic background information were excluded. Tertiary educated individuals missing residential information two years after ending their studies (less than 2.4%) were excluded from Study II. Tertiary educated individuals missing residential information before (less than .03%) or after (less than 2.4%) higher education were excluded from Study III.*

### Independent Variables

The independent variables<sup>7</sup> used in Studies II and III include characteristics reflective of an individual’s social space (i.e. their economic and cultural capital) and demographic background. Many of the demographic variables are commonly studied in research on mobility of the tertiary educated, as evidenced in Study I. Table 1 depicts the variables used in Study II and the

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<sup>7</sup> Many of the independent variables are used in both Studies II and III. However, sometimes the reference categories for these variables (i.e. parental education, higher education institution type, field of study, and upper secondary grades) differ between Studies II and III. Different reference categories were chosen so that the resulting average marginal effects from the analyses were positive, thus making interpretation easier for readers who may be less familiar with interpreting these outcomes.

## CHAPTER 4

descriptive statistics of the students and tertiary educated examined in that study. Table 2 shows the variables used in Study III and the descriptive statistics of the tertiary educated of rural origin that were examined in Study III.

Table 1 Descriptive Statistics for Study II

	Students		Tertiary Educated	
	%	N	%	N
<b>Gender</b>				
Male	42	160,049	42	147,514
Female	58	222,149	58	200,673
<b>Origin Location</b>				
Metropolitan Area	30	113,720	29	102,071
Small City Area	46	177,789	47	162,738
Rural Area	24	90,689	24	83,378
<b>Parental Education</b>				
No Tertiary Education	51	194,731	51	176,841
Tertiary Education	49	187,467	49	171,346
<b>HEI Type</b>				
New Universities	15	58,219	14	49,815
Old Universities	56	212,650	60	208,711
University Colleges	29	111,329	26	89,661
<b>Field of Study<sup>8</sup></b>				
Education	15	56,067	16	56,278
Social Sciences	27	105,532	30	104,707
Natural Sciences	7	27,708	6	21,244
Technology	24	91,326	26	90,895
Medicine / Odontology	2	7,037	3	9,808
Health Sciences	8	31,450	9	32,748
Fine Art	1	3,781	1	3,558
Forestry / Agriculture	1	2,400	1	2,813
Humanities	14	54,070	7	23,008
Other	1	2,827	1	3,128
<b>Upper Secondary Grades</b>				
Low	9	35,036	9	30,387
Average	38	143,196	38	130,958
Good	37	143,029	38	133,098
High	9	35,898	9	33,319
Unknown / Missing	7	25,039	6	20,425
<b>Study Location</b>				
Metropolitan Area	39	150,484	43	148,588
University Town	61	231,714	57	199,599
<b>N (Total)</b>	100	382,198	100	348,187

Source: Haley (2017a)

<sup>8</sup> Since some students change their field of study during higher education, the number of students associated with a particular field of study may differ from the number of tertiary educated individuals associated with that field.

## Economic and Cultural Capital

The following characteristics were included as independent variables to operationalize economic and cultural capital, which are the primary components of social space according to Bourdieu (1985; 1986):

*Parental income* consists of the combined annual income of an individual's parents when the individual was 16 years old. This variable represents the economic resources available to an individual and is represented in quintiles. Included in the lowest income quintile are individuals whose parents have no income or where information on their income is unknown. This variable is used in Study III.

*Parental education* indicates whether or not at least one parent (i.e. the biological or legal mother or father) completed at least two years of higher education by the time the individual turned 16 years old.

*Field of study* is categorized in accordance with the International Standard Classification of Education (ISCED) 1997 classification, which was developed by UNESCO (2006). However, some exceptions were made for use in Sweden. For instance, veterinary studies were categorized under medicine and social work studies were categorized within the social sciences. In ISCED, veterinary studies were categorized within agriculture and social work was categorized within health and welfare (UNESCO, 2006). Furthermore, humanities and the fine arts are disaggregated in this study as well as medicine and health sciences. For the population under analysis in this dissertation, field of study was determined by identifying the field where most credits had been earned. The specific categorization used in this dissertation was created within the GOLD database and was originally developed by Statistics Sweden and the Swedish National Agency for Higher Education and in collaboration with several university representatives.

*Higher education institution type* is organized into three categories: university colleges, new universities, and old universities. This variable symbolizes the relative prestige of the institution where an individual studied, with the greatest amount of prestige being attached to the old, well-established universities. For tertiary educated individuals, this variable is based on their last attended higher education institution. For "students" in Study II, this variable is based on the first higher education institution an individual attended.

## CHAPTER 4

Table 2 Descriptive Statistics for Study III

	%	N
<b>Gender</b>		
Men	41	33,948
Women	59	49,430
<b>Parental Income</b>		
1 (Lowest)	20	16,338
2	25	20,747
3	23	19,620
4	20	16,415
5 (Highest)	12	10,258
<b>Parental Education</b>		
No Tertiary Education	60	49,683
Tertiary Education	40	33,695
<b>HEI Type</b>		
New University	21	17,428
Old University	49	41,199
University College	30	24,751
<b>Field of Study</b>		
Education	20	16,979
Social Sciences	26	21,912
Natural Sciences	6	4,958
Technology	27	22,152
Medicine / Odontology	2	1,662
Health Sciences	10	8,422
Fine Art	1	791
Forestry / Agriculture	1	809
Humanities	6	4,978
Other	1	715
<b>Upper Secondary Grades</b>		
Low	8	6,650
Average	39	32,247
Good	40	33,383
High	9	7,334
Unknown / Missing	4	3,764
<b>Study Location</b>		
Metropolitan Area	29	24,093
University Town	71	59,285
<b>Children at Home</b>		
Children	13	11,099
No Children	87	72,279
<b>Age</b>		
19 to 25	50	41,799
26 to 37	50	41,579
<b>Destination</b>		
Urban	65	54,516
Rural	35	28,862
<b>N (Total)</b>	100	83,378

*Upper secondary grades* reflect an individual's grades from upper secondary school. Grades are categorized as low, average, good, or high. A category for unknown or missing grades was also included. Including a category for unknown or missing grades is important in order to recognize individuals who might have been admitted to higher education through alternative pathways such as through the Swedish Scholastic Aptitude Test (SweSAT).

*Study location* is represented as two categories: metropolitan area and university town. This variable is based on the last attended higher education institution for tertiary educated individuals. For students in Study II, study location is related to the first higher education institution an individual attended. Since there are no higher education institutions located in rural areas, there is no category for rural areas.

### **Demographic Characteristics**

*Sex / Gender* is based on an individual's registered sex at age 16. With Swedish register data, only an individual's sex is known, and the information is recorded dichotomously. There is no information on an individual's gender preference. While sex refers to the biological differences between males and females, gender is a socially constructed concept that refers to differences in the roles, behaviors, and activities that society considers appropriate for men and women. In Studies II and III different terminology is used to denote sex / gender. Study II uses sex because this most accurately describes the information collected by Statistics Sweden and the study is less concerned with discussing the influence of socially constructed differences between tertiary educated men and women in relation to their geographical mobility. However, Study III is interested in how these social differences between men and women influence their destinations after higher education.

*Age* refers to the age of an individual when he or she ended higher education. This variable was divided into two categories representing individuals 25 years old or under and individuals 26 years old or above. The latter age group characterizes individuals who are at a stage in life where they are more likely to form families.

*Children at home* signifies whether or not an individual had at least one child (either their own child or a partner's child) under the age of 18 living with them at the time they ended higher education.

*Origin location* indicates an individual's place of residence the year prior to beginning higher education studies. This variable is organized into three categories - metropolitan areas, small city areas, and rural areas<sup>9</sup>. The categorization of this variable is based on an earlier classification of nine categories developed by the Swedish Association of Local Authorities and Regions (SKL, 2011) (see Table 3). Metropolitan areas consist of *Metropolitan Municipalities* and *Suburban Municipalities* while small city areas consist of *Large City Municipalities* and *Medium City Municipalities*. The remaining municipality groups make up the rural areas category.

Table 3 Original Classification of Municipality Groups

<b>Municipality Groups</b>	<b>N</b>	<b>Description</b>
Metropolitan Municipalities	3	Municipalities with over 200,000 inhabitants
Suburban Municipalities	36	Municipalities where more than 50% of the population commute to another municipality for work, most commonly to metropolitan municipalities
Large City Municipalities	26	Municipalities with 50,000 to 200,000 inhabitants and where less than 40% of the population is employed in industry
Medium City Municipalities	40	Municipalities with 20,000 to 50,000 inhabitants and with a population density over 70% as well as municipalities where less than 40% of the population is employed in industry
Rural Municipalities	30	Municipalities with more than 6.4% of the population employed in the agricultural and forestry sectors and municipalities that are not sparsely populated municipalities or have a population density less than 70%
Industrial Municipalities	53	Municipalities where more than 40% of the population is employed in industry and that are not sparsely populated municipalities
Sparsely Populated Municipalities	29	Municipalities with fewer than 5 inhabitants per km <sup>2</sup> and fewer than 20,000 inhabitants
Other Large Municipalities	31	Other municipalities with 15,000 to 50,000 inhabitants
Other Small Municipalities	42	Other municipalities with fewer than 15,000 inhabitants

*Source: SKL (2011)*

## Dependent Variables

Each of the dependent variables used in the studies represent mobility in some form. In Study II, the dependent variable *mobility* is represented by two categories – “move” and “no move.” Additionally, there are two sets of dependent variables. The first set of dependent variables measures mobility to higher education while the second set of dependent variables measures mobility from higher education. The basis of Study II is an in-depth

<sup>9</sup> In Study III, these categories are called large urban areas, small urban areas, and rural areas respectively. Different terminology was used in Study III in order to remain consistent with the collapsed categories “urban” and “rural” used to define the dependent variable.



discussion of different methods for measuring this mobility. Therefore, only a brief description of these measures is provided here.

To measure mobility to higher education, four different measures of mobility was employed - a municipality measure, county measure, distance measure, and higher education area measure. With the municipality and county measures, individuals are considered mobile if they studied in a municipality or county different from their municipality or county of residence one year prior to entering higher education. For an illustration of the divisions of municipalities and counties in Sweden, see Appendix B and Appendix C respectively.

The distance measure considers individuals as mobile if the distance between their residence the year prior to entering higher education to their first higher education institution of attendance is 100 or more kilometers. The higher education area measures individuals as mobile if 1) the higher education institution they attended was located more than 100 kilometers from their place of origin or 2) their place of origin had a higher education institution in its vicinity, but they attended a different institution, irrespective of whether or not it was located 100 kilometers or more away from their place of origin. The figure 100 kilometers was chosen as the benchmark for mobility because previous research has shown that moving 100 or more kilometers in Sweden signifies a significant change to an individual's daily life (Niedomysl, Ernstson, & Fransson, 2017)

To measure mobility from higher education, four different measures of mobility was also employed - a municipality measure, county measure, distance measure, and a modified labor market area measure. With the municipality and county measures, mobility occurred if the municipality or county of an individual's last attended higher education institution differed from their municipality or county of residence two years after ending their higher education studies. The distance measure considers mobility to have occurred if the distance between an individual's residence two years after ending higher education to their last higher education institution of attendance is 100 or more kilometers. The modified labor market area measure defines mobility as having occurred if two years after ending higher education an individual resides in a labor market area different from their last higher education institution of attendance. The basis for the modified labor market variable is the labor market areas outlined by Statistics Sweden (2010). The division of labor market areas as defined by Statistics Sweden is illustrated in

Appendix D. Mobility was measured two years after higher education because prior research has indicated that most mobility from higher education occurs within the first two years after ending higher education studies (Haapanen & Tervo, 2012) and the likelihood of mobility generally tapers off the longer an individual stays in the area where they studied (Busch & Weigert, 2010).

Unlike Study II where the dependent variable measures mobility propensity, the dependent variable in Study III measures destination after higher education. Destination refers to an individual's place of residence two years after higher education and is organized into two categories – urban areas and rural areas. Similar to origin location, the variable *destination* is based on an earlier classification of nine categories developed by the Swedish Association of Local Authorities and Regions (SKL, 2011) (see Table 3).

## Analytical Methods

Binary logistic regression is used in both Studies II and III. In binary logistic regression, the dependent variable is discrete or qualitative rather than continuous or quantitative such as “move” or “no move” (Field, 2013; Long, 1997; Pampel, 2011). In Study II, binary logistic regression was chosen for the statistical analysis because most of the geographical units that make up the dependent variables (i.e. municipalities, counties, labor market areas) cannot be modelled as continuous variables or divided into comparable categories to fit a multinomial model (i.e. individuals might cross many different borders in a single move) (Niedomysl & Fransson, 2014). Binary logistic regression was chosen for Study III firstly because the dependent variable (i.e. destination after higher education) is categorical and secondly because classifying “destination” into two categories satisfied the requirement of having enough cases in each category of the independent variables for the logistic regression to produce reliable results (Field, 2013). Using multinomial logistic regression, which is used when there are more than two categories in the dependent variable, to examine mobility to different types of rural areas, for example, would have produced too few cases in some categories of the independent variables.

SPSS version 22 is used in both studies to obtain descriptive statistics, and STATA version 14.2 is also used in both studies to run binary logistic regression and obtain average marginal effects (AMEs) after estimating the logistic regression models. AMEs are useful in interpreting logistic regression

results because a coefficient is estimated for each category in the outcome variable (StataCorp, 2013). Conversely, results presented as odds ratios instead of marginal effects, for example, are relative to a base outcome category.

In addition, marginal effects are unaffected by differences in unobserved heterogeneity (i.e. unobserved variation) that is unrelated to the independent variables included in the models (Mood, 2010). The influence of unobserved heterogeneity on AMEs compared to odds ratios becomes evident when different levels of unobserved heterogeneity are introduced to a model, that is, odds ratios become biased (i.e. they change) while AMEs stay the same (see Mood, 2010 for an example). This means that comparing odds ratios across groups is problematic because unobserved heterogeneity can vary across groups and lead to invalid results (Allison, 1999). Therefore, AMEs are a better choice for making comparisons across groups, as was done in Study III with comparisons between men and women and in Study II between students and the tertiary educated.

Finally, AMEs ignore statistical significance while emphasizing practical significance and patterns within results (Williams, 2012). This is especially important in analyses that use population data because no statistical generalization is needed for population data (Gorard, 2012; Gorard et al., 2014). When significance testing is reported for population data, statistical misunderstandings are indicated (Gorard, 2012). For example, inferential statistics (e.g. significance testing, confidence intervals, and standard errors) are founded on the principles of random sampling (Gorard, 2012; Gorard et al., 2014) and when population data is used, such as in this dissertation, the principle of random sampling is violated. For example, according to Gorard (Gorard et al., 2014):

“Data for a population cannot have standard error, by definition. The standard error is defined as the standard deviation of a random sampling distribution, of samples drawn repeatedly from a population. It is used... to try and estimate the proximity of the sample mean to the population mean. When working with population data the population mean is known, therefore, such an estimation is neither needed nor valid” (p. 4).

The purpose for including this discussion on inferential statistics is to explain why commonly reported inferential statistics such as from tests of significance (i.e. p-values) are not reported in Studies II and III. Despite

arguments against reporting inferential statistics for population data, there continues to be criticism and debates on the use of inferential statistics in education and the social sciences (Gorard, 2012; Gorard et al., 2014). Primarily this criticism surrounds the use of significance testing (i.e. p-values) while the use of standard errors and confidence intervals is advocated for in research. However, the problems surrounding the use of p-values also exist for standard errors and confidence intervals. Nevertheless, concerns over excluding p-values are relatively uncontroversial; however, avoiding all inferential statistics techniques, including standard errors, receive more criticism from statisticians and journal reviewers alike (Gorard et al., 2014). For this reason standard errors are reported in Studies II and III while p-values are excluded.

## Missing Data

Prior to receiving the data used in this dissertation, some initial decisions on handling missing data were made by a database manager. These initial preparations included using data from other registers to limit the amount of missing data. For instance, data on an individual's legal mother or father was included if data on their biological parents was missing in order to limit the number of individuals missing information on parental education. Additionally, the last information on residential location was carried over for individuals who were missing residential information in one year. For instance, if the data showed that an individual lived in the same location in year one and year three but was missing information for year two, the location information from the surrounding years was used to supply information for year two.

Following these initial preparations, the remaining missing data was handled upon receipt of the data from the data manager. Fortunately missing data is minimal in the studies. Study II is missing information on about two percent of tertiary educated individuals' residential locations after higher education. Since this information was used for determining their mobility (i.e. the dependent variable), individuals missing this information were listwise deleted, meaning they were excluded from the analyses. Listwise deletion is a common method in research for handling cases with incomplete information and in situations where one to five percent of data are missing, simple methods for handling missing data, such as listwise deletion, are adequate

(Cheema, 2014; Young, Weckman, & Holland, 2011). Furthermore, while listwise deletion may lead to biased estimates of the coefficients, this method is still more robust for handling missing data in regression analyses than more sophisticated missing data handling methods (Allison, 2002).

Study II also has missing information for individuals' upper secondary grades (i.e. seven percent of students and six percent of the tertiary educated are missing information). The missing grades were handled using a version of the missing indicator method (also known as the dummy variable adjustment method) where a category was created within a variable to model the missing data. The purpose for creating this category was to acknowledge the individuals who may have entered higher education through other qualifications than grades, implying that upper secondary grades simply do not exist for these individuals. In this situation where grades information does not exist, the missing indicator method produces optimal estimates whereas in other situations where the information exists, estimates become biased (Allison, 2002). Five percent of individuals in Study III also are missing information on upper secondary grades, and the missing data was handled in the same fashion as Study II.

## Limitations of the Data

Analysis of secondary data, such as the register data used in this dissertation, poses some limitations to analyses. While register data comprises information on actual events and behaviors during an individual's lifetime, register data does not contain information on the motives behind these events and behaviors. In addition, register data excludes important information because the data were collected for administrative purposes rather than research purposes. For example, the register includes information on marriage but did not have any information on domestic partnerships prior to 2013 (Statistics Sweden, 2014). Many young, tertiary educated individuals may be in domestic partnerships, which would likely influence their mobility, but this cannot be examined through register data used in this dissertation. Consequently, analyses of register data often lead to further questions and study because there are limitations to the sorts of questions that can be addressed.

## Validity

In order to understand and discuss the quality of the interpretations of results in the three studies, a discussion on validity is necessary. Validity has been defined and classified differently by a number of qualitative and quantitative methodologists (Cohen, 2013; Pedhazur & Schmelkin, 2002; Shadish, Cook, & Campbell 2002). The discussion on validity that follows focuses on three standard forms of validity – internal validity, external validity, and construct validity (Cohen, 2013). Discussing validity in the frame of these categories serves to simplify the discussion; however, validity is a “unitary concept” (Messick, 1998) referring to the extent that conclusions drawn from a research study are true and correct.

### Internal Validity

Internal validity refers to how well the data sustains the interpretation of results (Cohen, 2013). In qualitative research, such as in Study I, attention should be given to the clarity of the claims made and the type and amount of evidence used to support these claims (Hammersley, 1992). Study I is a small scale literature review that is limited in scope (e.g. only 18 peer-reviewed articles were included and the selected articles were limited to those written in English), and the interpretation of results was not exaggerated beyond this claim of being a small scale study. For example, these claims were made clear by describing the contribution of the study as “a synopsis of research results” (Haley, 2016, p. 481), indicating only a brief review of literature on geographical mobility of the tertiary educated would be described. The limited scale of this study was emphasized even more with the statement “The articles included in this review are not meant to be exhaustive but rather are meant to provide a sample...” (Haley, 2016, p. 482).

An additional internal validity issue in Study I lies within the type of articles used in the literature review. The search for articles produced primarily quantitative articles. The search may have only produced quantitative articles due to the absence of some keywords that would have produced other relevant qualitative articles. For example, as became evident in the later stages of this dissertation, combinations of keywords such as “belonging,” “place,” and “identity” in addition to the keywords searched in Study I likely would have produced additional articles that could have been included in the literature review. Including qualitative articles on geographical mobility may

have shifted the broad claim that researchers “tend to focus on regional attributes and the geographical arrangement of labour markets...” (Haley, 2016, p. 486) to also acknowledge other researchers with non-economic perspectives who instead emphasize the influence of psychological factors (e.g. an individual’s place-based identity and place attachment).

In Studies II and III, the quantitative studies, the concern is whether or not differences in mobility propensity and destinations after higher education are due to the independent variables and nothing else (i.e. that the results are free of errors) (Shadish et. al., 2002). For example, one threat to internal validity in these studies is attrition due to mobility abroad. When individuals move abroad after higher education, no information on their residence is reported in Swedish register data. This lack of information could have implications for the accuracy of statistical outcomes on overall mobility propensity such as that which was examined in Study II. For instance, mobility propensity from higher education could be even higher if mobility abroad could be taken into account. This lack of information thus restricts the study to only account for national mobility when determining mobility propensity.

### **External Validity**

External validity refers to the degree that research results are generalizable or transferable to wider populations, settings, times, or situations. In quantitative studies, external validity refers to how far results are generalizable from a sample to a population. Conversely, in qualitative studies external validity is concerned with which populations and settings research results might be generalizable (Cohen, 2013).

To reduce the threat of external validity in Studies II and III, clear descriptions of how the independent and dependent variables were created are given (see Haley, 2017a, p. 53-54; Haley, 2017b, p. 6-8). These descriptions help to enable replication and use of the variables in other research studies. Additionally, these two studies use population data, not a sample, so generalizability to the tertiary educated population in Sweden born between 1973 and 1982 (i.e. the focal population of Studies II and III) is not an issue.

However, the results of Studies II and III are not likely to hold if the same independent variables are used to examine much earlier birth cohorts. One reason the results are not likely to be accurate is because the spatial

arrangement of higher education has shifted over time, especially in relation to the 1977 higher education reforms that expanded the higher education system. Prior to the reforms, some students likely had to travel further for higher education. Furthermore, the speed and availability of public transportation has improved over time, which has made geographical mobility increasingly less burdensome for many. The results are also not likely to be generalizable to other national contexts or other forms of mobility (e.g. mobility during retirement) because national infrastructure and population distributions vary and individuals have different priorities when making decisions regarding different types of mobility (e.g. health care facilities in relation to mobility during retirement) (Haley, 2017a, p. 58).

The results of the literature review in Study I are also not likely to be comparable across national contexts, time, or different types of geographical mobility for many of the same reasons discussed above in relation to Studies II and III. While the articles for the literature review in Study I were drawn from four European countries, the purpose was not to compare the results of these four countries nor to draw common conclusions as to how different factors influence geographical mobility of the tertiary educated. The purpose of Study I was rather to identify the most prevalent themes researched in the articles and provide a “summary of outcomes” (Haley, 2016, p. 482).

### **Construct Validity**

Construct validity has generally been associated with psychological tests and is concerned with the accuracy of test results in relation to unobserved constructs (i.e. latent variables) based on how they were constructed from observed variables (Cronback & Meehl, 1955; Pedhazur & Schmelkin, 2002). In a broader sense, construct validity is concerned with the extent that a particular variable represents the theoretical context it is meant to reflect (Cohen, 2013). The remainder of this section focuses on a discussion of the most pertinent threats to construct validity in relation to the dependent and independent variables employed in Studies II and III. Construct validity is not generally associated with qualitative research<sup>10</sup>, so construct validity in relation to Study I is not addressed.

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<sup>10</sup> Eisenhart and Howe (1992, p. 648) have linked construct validity with qualitative research, specifically that ethnographers should “demonstrate that the categories they are using are meaningful to participants or reflect the way participants actually experience reality.”



The dependent variables *mobility* and *destination* and the independent variable *origin location* are subject to a known and serious threat to the results of all research that uses geographical data. This threat is called the modifiable areal unit problem (MAUP). The MAUP consists of two issues – the scale effect and the zonation effect. The scale effect pertains to selecting the most appropriate number of regions to analyze from the hierarchy of regions that exist (eg. municipalities versus counties). This effect occurs because regions can be divided into any number of units. Conversely, the zonation effect refers to an aggregation problem. Zonation issues arise when choosing the shape of the region or unit to study (e.g. labor market areas, which can change in shape due to the addition or subtraction of municipalities that make up the labor market area based on changes to commuter flows over time). In other words, the zonation effect occurs because a region can be divided into the same number of units but in different ways in terms of shape (Bell & Brown, 2014; Manley, 2014; Griffith, 1992; Openshaw, 1984).

Within studies that use geographical data, choices regarding the size and shape of geographical units have implications for the statistical outcomes and results of analyses. Population distributions and regression coefficients are likely to differ when different geographical units of analysis are applied to the same statistical tests. The influence of the MAUP on research into the geographical mobility of Swedish tertiary educated individuals is explored and discussed in-depth in Study II through the comparisons of different ways to define mobility.

*Parental income, upper secondary grades, and age* are inherently continuous but have been operationalized as categorical variables in Studies II and III. Restricting the range of these variables to categories could be a threat to construct validity. For instance, categorizing parental income into quintiles can result in low power, meaning the effect sizes of the relationship between two variables may be less precise (Shadish et. al., 2002). However, categorizing the variables enables the question “what is the difference between the lowest and highest categories,” to be answered for example. This contrasts to examining the relationship of incremental changes in income or grades to increases in the probability of mobility. Categorizing these variables into three or more categories eases the communication of results to non-statisticians (Gelman & Park, 2008). Parental income and upper secondary grades both have five categories.

The decision to dichotomize age was based on identifying “individuals who are in a family-forming stage of life” (Haley, 2017b, p. 8) from those who are not. The category of individuals ages 26 to 37 corresponds to the Swedish population register indicating that men are on average 31 years old and women 28 years old when they have their first child (Statistics Sweden, 2012). In addition, the population register indicates that the age when couples formally register as living at the same address is 27 for men and 24 for women (Statistics Sweden, 2012).

Studies II and III make the assumption that an individual’s residence during higher education matches the location of the institution they attended. While *study location* indicates the location of the higher education institution an individual attended, it may not be an accurate indicator of where the individual actually resided during their studies. The reason for using the location of the higher education institution to conceptualize the place where individuals lived during their studies is because using a student’s address is unreliable. Even though students are required to formally register their address as the place where they live or study (SFS 1991: 481), many students do not comply because they may find the process tedious.

Distance education may also pose an issue for the construct validity of *study location*. For example, for mobility from higher education, the location of an individual’s last attended higher education institution is considered. This means that residential locations for individuals who participated in distance education may not be accurate. While the percentage of tertiary educated individuals who completed some credits through distance education is about 21 percent, 19 percent completed fewer than 60 credits through distance education, and less than 0.5 percent of individuals completed all their credits through distance education. These percentages are comparable to the rural origin sub-group of tertiary educated individuals used in Study III as well.

The variable *children at home* is meant to conceptualize the influence children have on an individual’s geographical mobility. However, the variable assumes that all children under the age of 18 have the same influence on their parent’s mobility. This assumption may pose a threat to validity because previous research in Sweden has shown that individuals with pre-school age children are more mobile than individuals with other children still in school (Branden, 2013).

The way *gender* is conceptualized in Study III may also pose a threat to construct validity. While gender is meant to differentiate the roles, behaviors,

and activities society considers appropriate for men and women, gender is actually constructed based on an individual's biological sex. Gender was constructed in this way because that is how the Swedish population registers record information on sex / gender. There is no way to determine if an individual ascribes to his or her gender appropriate behaviors, as conceived by society, from the information provided by the Swedish population register.

## Chapter 5: The Empirical Studies

The three studies included in this dissertation focus on higher education-related mobility. The first study gives an overview of current research that has been conducted on mobility of tertiary educated individuals in Europe. The remaining two studies focus specifically on the situation in Sweden. Following a summary of each study and highlighting the main results, an integrated discussion of the three studies is presented.

### European Perspective (Study I)

The research aim developed in the first study “Through a Social Space Lens – Interpreting Migration of the Tertiary Educated” (Haley, 2016) arose from a need to obtain an overview of current research on mobility of the tertiary educated. This study is based on a literature review with the aim of identifying common factors that influence mobility propensity and destination after higher education. The study provides an overview of 18 peer-reviewed articles from the year 2000 to 2014 from four European countries – Sweden (eight), Italy (two), the Netherlands (two), and the United Kingdom (six). The study identifies three main categories within which factors influencing mobility propensity and destination after higher education can be categorized – regional characteristics (e.g. local economy, cost of living and wages, and population density), human capital (Bourdieu, 1986) (e.g. field of study, type of higher education institution attended, and educational achievement / grades), and demographics (e.g. gender, ethnicity, age, and previous geographical mobility) (see Haley, 2016, p. 482-485).

This study also uncovered that the majority of research on mobility of the tertiary educated originates from the fields of human geography and economics. Since researchers in these fields primarily study this topic, a common focus in this line of research is on the labor market factors in destination regions that influence mobility from higher education. Consequently, economic perspectives are often taken to explain mobility of the tertiary educated. Therefore, social space is suggested as a concept that can be used to facilitate a relational interpretation of the factors that influence mobility. Examples of how a social space perspective can facilitate

interpretations of higher education-related mobility are discussed from four philosophical starting points (see Haley, 2016, p. 487-488).

Bourdieu's (1984; 1985; 1986, 1989) conceptualization of social space is proposed as a promising way to develop an educational perspective of higher education-related mobility using socio-spatial perspectives. The reason Bourdieu's conceptualization of social space is proposed is because he focuses on relating an individual's social context to geographical contexts, rather than centering on geographical contexts, which is the case with many other socio-spatial theories. Additionally, Bourdieu draws connections with education, which suggests education plays an important role in shaping the relationship of an individual's position in geographical and social space.

## Spatial Perspective (Study II)

While conducting the literature review in the first study, inconsistent measures for operationalizing higher education-related mobility were observed in the literature. Therefore, one purpose of the second study "Defining Geographical Mobility: Perspectives from Higher Education" (Haley, 2017a) is to investigate how the use of different measures to operationalize the concept "mobility" results in differing statistical outcomes when applied to the same data and analyses in a higher education context. A second purpose is to contribute to a discussion on the most appropriate operationalization of mobility to and from higher education. This is pertinent because most studies of higher education-related geographical mobility conducted by geographers only make use of the most common measures for operationalizing mobility (e.g. administrative units, distance) (Niedomysl et. al., 2017) without considering how these measures could be adapted to be more relevant to the particular type of mobility under investigation. Therefore, this study examines five different measures of mobility, two of which were created specifically for this study with the purpose of placing higher education at the center of their development. This contrasts with common measures such as municipal or county units, which were created for governmental administrative purposes.

The common measures of mobility included in this study consist of crossing county or municipal boundaries or moving a certain distance (e.g. moving 100 or more kilometers). These measures are used in both analyses of mobility to and from higher education. The two measures created specifically for the purpose of measuring higher education-related mobility are - the

higher education area measure and the modified labor market area measure. Mobility operationalized by the higher education area measure occurs when a student 1) moves 100 or more kilometers or 2) attends a higher education institution that is not closest to their place of origin, regardless of whether or not it is located 100 or more kilometers away from their place of origin. The modified labor market area measure refers to crossing labor market areas. While this modified measure is based on the primary labor market areas outlined by Statistics Sweden (2010), the modified measure excludes or includes secondary municipalities based on reasonable commuting options to the higher education institutions located in the respective labor market areas. The higher education area measure is only used in the analysis of mobility when entering higher education while the modified labor market area measure is only used in analyses of mobility from higher education.

These mobility measures serve as dichotomous outcome variables (i.e. “move” or “no move”) in a series of binary logistic regressions. The independent variables used in the logistic regression models are representative of an individual’s social space (e.g. higher education institution type, field of study, study location, gender, and parental education). Swedish register data is used in these analyses.

The results indicate that social space factors related to the spatial arrangement of higher education (e.g. field of study and study location) have the greatest differences in statistical outcomes when different mobility measures are employed (see Table 4 in Haley, 2017a). Furthermore, the higher education area and modified labor market area measures are identified as being most appropriate for operationalizing higher education-related mobility, namely because they most closely account for the spatial arrangement of higher education and they are not too disaggregated like the municipality measure (see Haley, 2017a, p. 57).

### Gender Perspective (Study III)

The third study “Returning to Rural Origins after Higher Education – Gendered Social Space” (Haley, 2017b) applies a social space perspective to examine the destinations of Swedish tertiary educated individuals of rural origin after higher education. The purpose of this study is to examine the Swedish tertiary educated individuals of rural origin who return to these areas following higher education. The aim is to examine gender differences in the

demographic characteristics and economic and cultural resources that have the greatest influence on individuals returning to rural areas.

This study also uses Swedish register data, though the population is reduced to focus on individuals originating from rural areas. Gender-divided binary logistic regression is used to examine the influence of social space on rural return after higher education. The dependent variable “destination” is represented by two categories – urban area and rural area. However, since the focus of this study is on tertiary educated individuals who return to rural areas, the results of the rural category are highlighted and presented as average marginal effects.

The primary findings from this study show that men and women who have children, study in the education or forestry / agriculture fields, have low upper secondary school grades, and study at a university college are most likely to return to rural areas after higher education (see Table 3 in Haley, 2017b). The results also underscore gender differences in the extent that social space characteristics influence the probability of returning to rural areas. The characteristics identified to have the greatest gender differences in relation to a rural return include parental education, studying in the education and forestry / agriculture fields, and study location (see Table 3 in Haley, 2017b). The results of this study underscore how an individual’s destination after higher education is related to and influenced by social structures.

### Integrated Discussion

While each of the three studies approach the analysis of social space and mobility differently, an implicit theme is the reciprocity of mobility and social space (i.e. how mobility from higher education influences and is influenced by social space). Therefore, the aim of this integrated discussion is to address this reciprocity. This integrated discussion is therefore guided by the following questions.

- 1) How does social space influence mobility from higher education among tertiary educated individuals?
- 2) How is the social space of tertiary educated individuals influenced by mobility from higher education?

Each of the three perspectives taken in the studies (i.e. European, spatial, and gender) is used to reflect on these questions in the following sections.

### **How does Social Space Influence Mobility?**

The literature review in Study I offers a European perspective on the social space characteristics found to be most influential in the mobility propensities and destinations of the tertiary educated in four European countries. In terms of social space, some common patterns in the influence of social space characteristics were identified. For instance, tertiary educated individuals who attended regionally oriented institutions have a lower mobility propensity than individuals who studied in universities. Furthermore, high achievers have a general tendency to congregate in or move to more urban areas if they are not already located there. There was also consensus that older age reduces mobility propensity and prior mobility, such as mobility when entering higher education, increases the likelihood of mobility from higher education (see Haley, 2016, p. 483-485).

Study I also exemplifies how attempting to obtain a common understanding of the influence of social space on mobility in Europe is challenging since there is some degree of difference in the influence of demographics, education (i.e. human capital) (Bourdieu, 1986), and even regional characteristics across the examined countries. These differences stem from the unique spatial arrangements of higher education and labor markets of each country, which is tied to a country's size, geography, politics, and culture for example. One cross-national difference that emerged in Study I was how there are different migration propensities for the tertiary educated who studied in different fields of education across the European countries (see Haley, 2016, p. 483-484). Additionally, research in some countries seemingly focuses on certain demographic aspects more than others. For example, the United Kingdom focuses on ethnicity to a greater extent than the other countries included in the study and family and relationships are often a focus in Swedish research (see Haley, 2016, p. 485).

However, Study I illustrates how most cross-national differences relate to educational factors. This pattern coincides with results from Study II (see Tables 4 and 5 in Haley, 2017a), which indicated that educational factors related to the spatial arrangement of higher education (e.g. field of study) are most susceptible to exhibiting different degrees of influence on mobility



propensity when mobility is defined differently. These patterns suggest that the influence of evolved social space, by way of education, on mobility is closely tied to both national spatial arrangements of higher education and how mobility is operationalized in research. Therefore, a spatial perspective on the influence of social space on mobility underscores the importance of the spatial arrangement of higher education in terms of creating spatial (dis)advantage among individuals (e.g. geographic accessibility to higher education and labor markets), which contributes to shaping an individual's social space position while simultaneously shaping their geographical mobility.

In Study III the focus shifts from a spatial perspective to a gender perspective. A gender perspective enables a closer examination of how gender mediates the influence of social space on mobility of the tertiary educated. The outcome of Study III indicates that gender interacts with some social space factors (e.g. parental education, studying in the education and forestry / agriculture fields, and study location) to result in different patterns of mobility to rural areas between men and women (see Table 3 in Haley, 2017b).

The combined results of these three studies support the understanding that mobility is relational (Manderscheid, 2009a; 2009b). That is, mobility among tertiary educated individuals is not reliant on a series of independent factors related to an individual's social space or the spatial arrangement of higher education but that mobility is determined by the interrelationships of these factors. In the three studies included as part of this dissertation, interrelationships between social space, the spatial arrangement of higher education, and national context were found to be important to the mobility propensity and destinations of the tertiary educated.

### **How is Social Space Influenced by Mobility?**

Although the three studies are framed around an examination of how social space influences mobility and destination among the tertiary educated, social space is not static (Massey, 2005). Social space is constantly evolving and an individual's educational trajectory through higher education, as well as their mobility from higher education, influences their social space position after higher education. For example, the results in Study III discuss how individuals who pursue fields of study atypical of their gender are less likely to move to rural areas from higher education (see Table 3 in Haley, 2017b). These patterns may be influenced by different perceptions among men and women

as to the friendliness of rural labor markets due to the prevalence of traditional perceptions of gender in rural areas (Forsberg & Stenbacka, 2013; Forsberg, 2003). Consequently, these individuals may use mobility from higher education as a strategy to reduce gendered influences on their social space.

In a similar vein, mobility among tertiary educated individuals can be used as a strategy to reduce the influence of spatial arrangements on their social space. For instance, Study II mentions that tertiary educated individuals who studied in the forestry / agriculture, medicine / odontology, and fine arts fields are forced into mobility (see Table 5 in Haley, 2017a). They are essentially forced to be mobile because it is unlikely everyone who pursued these studies would be able to acquire appropriate employment that compliments their higher education in the same area as they studied. Therefore, mobility can be viewed as a strategy for individuals to maintain the social space position they formed during higher education rather than shift to a different social position by potentially being forced to enter into a less appropriate employment situation relative to their achieved education if they are not mobile.

Examining specific influences of mobility from higher education on social space from a European perspective is challenging because there are no cross-national measurements of mobility and social space. This is also a common issue in cross-national studies of non-higher education-related mobility (Bell et al., 2002; Bell et al., 2015). However, broadly speaking one could infer from Study I that the tertiary educated are using mobility to reproduce or advance their social space positions by moving to larger labor market areas where they are likely to have improved chances of finding employment that matches their education. However, as Study III indicates, not all tertiary educated individuals move to large labor market areas (see Table 1 in Haley, 2017b). To obtain a more generalized understanding of the influence of mobility on the social space positions among tertiary educated individuals in Europe after higher education, a concerted cross-national effort to operationalize higher education-related mobility and social space would need to take place.



## Chapter 6: Concluding Discussion

This chapter highlights the main contributions of the integrated discussion and the three complimentary studies as they relate to the overarching aim of the dissertation. The principal contribution of the three studies and integrated discussion is that of incorporating a social space perspective with an educational orientation into research on geographical mobility of the tertiary educated. Implications for practice based on the results of the studies are also discussed. Finally, additional questions that arose throughout this dissertation but were beyond the scope of this dissertation are addressed. Therefore, a discussion of avenues for further research on examining the mobility and destinations of the tertiary educated concludes this chapter.

### Contribution

As illustrated in the integrated discussion, each of the three studies contributes a different perspective to understanding the influence of social space on geographical mobility. Study I contributes a European perspective, Study II a spatial perspective, and Study III contributes a gender perspective. Underscored in the integrated discussion is also the reciprocal nature of social space and geographical mobility. While some educational studies have acknowledged that geographical mobility is reciprocally related to patterns of social positions (e.g. Lindgren & Lundahl, 2010), this is still a growing field of research. Therefore the integrated discussion provides a valuable contribution to recognizing this interdependent relationship as it relates to the tertiary educated. The specific contributions of each of the three studies to furthering research on geographical mobility of the tertiary educated with an educational orientation are described below.

### Study I

The main contribution of Study I is a conceptual discussion on the contributions of an educationally oriented social space perspective relative to an economic or geographical perspective on higher education-related mobility. While many studies on geographical mobility of the tertiary educated

emerging from economics and human geography disciplines focus on the influence of economic and geographical contexts, social space according to Bourdieu (1984; 1985; 1986, 1989) emphasizes social context over geographical context, yet still accounts for the relationality of the social and geographical. Bourdieu also emphasizes the role of education in mediating an individual's social position, which has implications for their geographical position. Therefore, this study contributes a proposal of an alternative, educationally oriented lens researchers can use to reflect on geographical mobility in relation to education.

### **Study II**

This study contributes to a broader discussion on the importance of context when researchers select measures to operationalize geographical mobility. Generally, geographical studies employ common measures of mobility (e.g. administrative boundaries or distance) (Niedomysl et. al., 2017) without considering how these measures could be modified to suit the type of mobility being examined. In this study where higher education-related mobility is the focus, the importance of the spatial arrangement of the higher education system under investigation to the construction of measures of mobility is underscored.

Therefore, this study challenges the way higher education-related geographical mobility is often addressed in geographical research. For example, this study introduces two atypical measures of mobility representing mobility to higher education (i.e. the higher education area measure) and from higher education (i.e. the modified labor market area measure). The basis for the construction of these atypical measures is the spatial arrangement of higher education in Sweden, which is influenced by social and political forces. In highlighting the spatial arrangement of higher education, the importance of accounting for social and political underpinnings in the construction of measures of mobility is underscored.

### **Study III**

This study contributes to an under-researched area of geographical mobility, that is, geographical mobility to rural areas after higher education. A focus on mobility to rural areas contrasts to the greater prevalence of research on mobility to city regions (Rerat, 2014). Additionally, this study contributes an

analysis of rural return after higher education from the perspective of gendered social space, which contrasts to the economic perspectives dominating this area of research. Employing Bourdieu's (1984; 1985; 1986; 1989) conceptualization of social space in this study facilitates a relational explanation of rural return after higher education. Thus, the importance of taking into consideration a plurality of factors (e.g. social, educational, and geographical factors) that could influence an individual's destination after higher education is emphasized rather than focusing on economic influences, as is the case in human capital theory (Becker, 1994). Finally, this study also contributes a gender perspective, which has been largely absent in research on geographical mobility (Faggian et. al., 2017).

## Implications for Practice

Geographical mobility of the tertiary educated has a fundamental role in the economies of an individual's origin and destination regions (Faggian et. al., 2017). Therefore, knowledge on the geographical mobility patterns of tertiary educated individuals is important for regional planning and development. For example, understanding the geographical mobility patterns of tertiary educated individuals is important for municipal policymakers to plan where and for whom their place-marketing campaigns (i.e. campaigns designed to attract groups of individuals to a specific area) should be directed. The studies included in this dissertation offer some insight to the geographical mobility patterns of the Swedish tertiary educated, which could be of use to regional planners, industry recruiters, and university officials working on policies and strategies to facilitate regional development and innovation.

To illustrate, many young adults leave rural areas in Sweden and relocate to more urbanized areas after higher education (see Table 1 in Haley, 2017b). Additionally, place-marketing campaigns at the municipal level geared toward attracting individuals to rural areas have largely proven unsuccessful (Niedomysl, 2004; 2007). One reason for this lack of success may be that there is limited knowledge on the characteristics of the tertiary educated individuals who actually move to rural areas (Bjerke & Mellander, 2016). Study III offers some insight as to the educational trajectories and demographic characteristics common among the tertiary educated who return to rural areas after higher education (see Table 3 in Haley, 2017b). For example, having a child increases the likelihood of both men and women moving to rural areas.

Therefore, educational policies to ensure that the quality and availability of childcare and primary and secondary education is equivalent to that offered in urban areas may be a strategy for attracting tertiary educated individuals to rural areas and enticing them to stay long-term. In addition, employers in rural areas may want to consider developing recruitment and retention strategies that are gender inclusive in order to attract tertiary educated men or women entering a field atypical of their gender. The reason for this is because tertiary educated individuals who study in fields atypical of their gender are less likely to return to rural areas after higher education (see Table 3 in Haley, 2017b).

Study II highlights how different definitions or measures of mobility produce different statistical outcomes. Due to different measures of mobility producing different statistical outcomes, regional planners and policymakers should take into consideration how researchers define geographical mobility before developing regional recruitment strategies and campaigns around these statistics. Otherwise different definitions of mobility, and thus differing statistical outcomes, could lead to misinformed policies and regional planning. For example, if municipal boundaries are used to differentiate mobile from immobile tertiary educated individuals, few differentiating characteristics can be identified between the two groups (see Table 5 in Haley, 2017a). Therefore, developers of place-marketing campaigns geared toward tertiary educated individuals might determine that the same recruitment tactics can be used for all tertiary educated individuals because the statistics show that the characteristics of individuals who are mobile are more or less the same as those who are immobile. However, if distance is used to define mobility, differences in characteristics between mobile and immobile tertiary educated individuals are more pronounced (see Table 5 in Haley, 2017a), which would indicate a need for different marketing tactics.

### Avenues for Further Research

While this dissertation has contributed to a growing field of research in both the education and geography disciplines, there are still many avenues for further researching higher education-related mobility. One prospective area that came to light in the course of writing this dissertation was that of making comparisons in different contexts. For example, there is a need for cross-national studies of general national mobility (Bell et. al., 2002; Bell et al., 2015) and higher education-related mobility specifically. The integrated discussion

underscored the challenges in obtaining a common European outlook on national geographical mobility among tertiary educated individuals. One factor contributing to challenges in comparing national mobility statistics is the lack of a common measure (i.e. definition) of mobility (Bell et al., 2015). However, measures of higher education-related mobility are not even consistent in national studies (Niedomysl et. al., 2017). Therefore, this is certainly an area where national (and international) cooperation among researchers could improve the comparability of geographical mobility studies.

In addition to cross-national comparisons of geographical mobility, another potential area to explore is linkage between mobility at different levels of education. One example is to connect mobility and commuting to schools at the secondary level (e.g. Andersson et. al., 2012; Fjellman, 2017) with higher education-related mobility in order to examine how mobility to (upper) secondary education relates to an individual's mobility to higher education. A further area that could be explored are patterns of national mobility among international students, that is, examining relationships between their international mobility and mobility in their host country upon ending higher education study.

While this dissertation focused on spatial contexts, examining the link between space and time in higher education-related mobility may be an interesting avenue for future research. Examining changes in higher education-to-work mobility patterns and propensities before and after the higher education reforms in the 1970s could, for example, shed further light on how different spatial arrangements of higher education influence geographical mobility and, in turn, an individual's social position after higher education. Additionally, how these different arrangements have differentially influenced mobility among individuals of different social space positions could also be examined to gain further insight on the interrelationships of geographical mobility, social position, and the arrangement of higher education.

Another avenue of research incorporating temporal contexts is to study how mobility behavior develops over time after an individual ends higher education. Few studies take into consideration that not all mobility occurs immediately after higher education (Haapanen & Tervo, 2012). Further research is therefore needed on the role of time in mobility propensity in the years following higher education. For example, differences in the duration of



time among individuals occupying different social spaces stay in their place of study could be examined.

Finally, secondary analysis of literature in Study I and analysis of secondary data (i.e. register data) in Studies II and III often lead to further questions for study and are generally the start of an investigation rather than an end in themselves (Gorard, 2012). For example, the studies in this dissertation leave questions on the motivations and preferences of tertiary educated individuals in relation to geographical mobility and destination after higher education unanswered. Therefore, this dissertation provides an overview of the actual patterns of geographical mobility of the tertiary educated, which could be used as the basis for further studies involving surveys or qualitative methods, such as interviews, that could address questions of motivation and preference.

# Svensk Sammanfattning (Swedish Summary)

Utbildningsforskning har generellt fokuserat på social- (Lindgren & Lundahl, 2010) och internationell mobilitet (Solimano, 2008). Kulturgeografer och ekonomer är ledande vad gäller forskning om nationell geografisk mobilitet bland högskoleutbildade (Hansen & Niedomysl, 2009; Wikhall, 2002). De använder övervägande ekonomiska teorier vilket lett till att humankapitalteorin fått förklara olika typer av förflyttning. Således förbises ofta förhållandet mellan sociala strukturer och geografisk mobilitet.

För att belysa förhållandet mellan sociala strukturer och geografisk mobilitet, introduceras i denna avhandling ett utbildningsorienterat perspektiv på studier av sociala rum och geografisk mobilitet bland de högskoleutbildade. Genom att inta ett utbildningsperspektiv, betonas faktorer som hänför sig till utbildningsstruktur, till exempel rumslig placering av högre utbildning.

## Syfte

Huvudsyftet är att undersöka sambandet mellan den rumsliga lokaliseringen av högre utbildning, högskoleutbildades positioner i det sociala rummet, deras val av utbildning, flyttbenägenhet och etablering efter utbildning. I tre studier undersöks olika aspekter av dessa faktors inbördes förhållanden. Avhandlingen avslutas med en integrerad diskussion om den reciproka karaktären av dessa inbördes förhållanden.

Studie I syftar till att ge en överblick över nuvarande forskning om mobilitet av de högskoleutbildade i Europa och att införa ”socialt rum” som ett begrepp för att underlätta en relationell tolkning av mobilitet. Litteraturstudien visade bland annat att mobilitet operationaliseras på olika sätt. En logisk fortsättning i Studie II blev därför att identifiera en lämplig operationalisering av mobilitet före och efter högskoleutbildning utifrån ett utbildningsvetenskapligt perspektiv, samt att analysera hur de olika ”mobilitetsmått” påverkade förståelsen av individers sociala rum och därmed sannolikheten för mobilitet. I studien används högre utbildning för att exemplifiera vikten av sammanhang när begreppet ”mobilitet” analyseras. Studie III syftar till att undersöka vilken betydelse kön har för en individs

position i det sociala rummet på mobilitet till landsbygd efter utbildning bland högskoleutbildade som härstammar från landsbygden.

## Bakgrund

Den rumsliga lokaliseringen av svenska lärosäten (dvs. den geografiska placeringen av lärosäten och deras egenskaper) kan bidra till förståelsen av flyttbenägenhet och i vilka regioner eller orter de högskoleutbildade väljer att etablera sig. Till exempel begränsar lokaliseringen av lärosäten var studenterna kan flytta när de påbörjar högskolestudier och det utgör också utgångspunkt för eventuell geografisk mobilitet efter avslutad utbildning. Den nuvarande rumsliga lokaliseringen av svenska lärosäten är till en stor del resultat av reformer. Efter 1977 års reform (Högskoleverket, 1998), etablerades 17 nya högskolor för att komplettera befintliga universitet och yrkesinriktade institutioner. Dessa nya, små och medelstora institutioner etablerades för att i första hand erbjuda kandidatexamina (Högskoleverket, 1998). Expansionen skapade en jämnare geografisk fördelning av lärosäten.

Sverige har officiellt ett enhetligt system för högre utbildning i enlighet med 1993 högskoleförordningen (SFS 1993: 100), trots detta skiljer sig lärosäten åt vad gäller vilka program och examensnivåer som de erbjuder. I realiteten kan systemet anses vara binärt (Askling, 2012; Kyvik, 2004). Det är inte bara lärosätenas lokalisering som påverkar mobilitet, det är också de olika utbildningsinriktningar, examensnivåer och institutionens prestige som påverkar geografisk mobilitet. Skillnader mellan olika lärosäten kan också påverka den geografiska mobiliteten efter högskoleutbildning. Till exempel kan arbetsgivare ha olika uppfattningar om vilka högskoleutbildade som är eftertraktade även om de är utbildade inom samma ämnesområde men vid olika lärosäten. Skillnader i prestige mellan lärosäten kan därför begränsa var de högskoleutbildade kan börja arbeta.

Den rumsliga lokaliseringen av högre utbildning i kombination med arbetsmarknadens regionala variation påverkar också mobiliteten. Till exempel visar Studie II att utbildningsområden såsom medicin/odontologi, konst och skogsbruk/jordbruk inte är jämnt fördelade över lärosätena (dvs. program som erbjuds inom dessa utbildningsområden finns bara vid några få lärosäten). Denna fördelning gör att studenterna som studerat något av dessa utbildningsområden troligen behöver flytta för att hitta lämpligt arbete (t.ex. sysselsättning som motsvarar deras utbildningsnivå och område).

Sannolikheten att det inte finns tillräckligt med matchande arbetstillfällen i närområdena kring lärosätena är stora. Den rumsliga placeringen av lärosäten i kombination med arbetsmarknadens struktur påverkar möjligheterna för de högskoleutbildade att få anställning som motsvarar deras utbildning i närområdet och kan därför motivera geografisk mobilitet.

### Teoretiskt Ramverk

Bourdieu's begrepps konstruktion av det sociala rummet (1984; 1985; 1986; 1989) utgör den teoretiska grunden i denna avhandling, och ger ett bidrag utöver de ekonomiska och geografiska perspektiv som är vanligt förekommande inom detta forskningsområde. I motsats till majoriteten av geografiska teorier av det sociala rummet (t.ex. Harvey, 2009), riktas inte Bourdieus konceptualisering av det sociala rummet mot geografiskt eller fysiskt rum (Creswell, 2002). Det är individens ekonomiska och kulturella kapital som Bourdieu anser utgör grundläggande skillnader mellan individer. Individer är fördelade i det sociala rummet beroende på hur mycket kapital de har i tillägg till strukturen eller sammansättningen av detta kapital (Bourdieu, 1989, s. 17). Dessutom menar han att ytterligare egenskaper till exempel nationalitet eller kön påverkar individens ekonomiska och kulturella kapital för att tillsammans forma uppfattningar och beteenden (Bourdieu, 1984, s. 107).

En individs position i det sociala rummet är ofta kopplad till dennes position i det geografiska rummet. Konstruktionen av det sociala rummet innebär att människor i liknande positioner i det sociala rummet har liknande erfarenheter, intressen och dispositioner, så att de troligtvis kommer att bete sig på likartat sätt. Bourdieu menar att ju närmre individer befinner sig i det geografiska rummet, desto närmre är de i det sociala rummet, vilket betyder att de delar fler egenskaper. Individer nära varandra i det sociala rummet har en tendens att samlas i det geografiska rummet, genom val eller nödvändighet (Bourdieu, 1989, s. 16).

Genom att använda Bourdieus begrepps konstruktion kommer utbildning och socialisering att utgöra fokus för denna avhandling. Ytterligare ett bidrag från Bourdieu är hans relationella sätt att skapa mening, han identifierar verkligheten genom sociala och geografiska relationer hellre än genom direkt tolkning av enskilda eller grupper's beteenden (Bourdieu, 1989). Genom att undersöka den geografiska mobiliteten bland de högskoleutbildade från ett socialt rum perspektiv kan, kunskap om förhållandet mellan flyttbenägenhet

bland specifika grupper och de geografiska platser de väljer, framträda. Med hjälp av det sociala rummet kan, enligt Bourdieu, en ökad förståelse uppnås för hur en individs ekonomiska och kulturella (dvs. utbildning) resurser och demografi avgör flyttbenägenhet och val av etableringsort efter utbildning.

Bourdieu använder det sociala rummet som utgångspunkt till skillnad från ekonomiska teorier där rumsliga modeller för arbetssökande är typiska i forskning om geografisk mobilitet (Faggian et. al., 2006). Dessa teorier föreslår att människor flyttar för att få ökade ekonomiska fördelar. Utöver dessa ekonomiska teorier är teorier om förankring vid och tillhörighet till platser också använda för att förklara geografisk mobilitet och etableringsregion efter utbildning. Teorier om platstillhörighet fokuserar på förhållandet mellan regionala karakteristika och en individs geografiskt inbäddade tillgångar som är knutna till vissa geografiska platser (Dahl & Sorenson, 2010; Wikhall, 2002). Dessa perspektiv antar att förhållandena mellan dessa faktorer påverkar en individs val av en plats framför en annan (Pollini, 2005). Emellertid försummar dessa teorier i allmänhet relationer mellan sociala och demografiska egenskaper och förhållandet mellan dessa egenskaper till geografi. Därför kan begreppet ”det sociala rummet” användas för att förstå hur de sociala och geografiska positionerna bland de högskoleutbildade påverkar deras mobilitet och etableringsregion efter utbildning.

## Metod

### Data

Studie I är en litteraturstudie, som innehåller en översikt över 18 vetenskapliga artiklar från år 2000 till 2014. Empirin i artiklarna kommer från fyra europeiska länder (Sverige, Italien, Nederländerna och Storbritannien) och samtliga behandlar geografisk mobilitet bland högskoleutbildade. Artiklarna är granskade, publicerade på engelska och tillgängliga via Göteborg universitets bibliotek. Sökandet efter tidskriftsartiklar var tvärvetenskapligt för att få en heltäckande förståelse för det gemensamma tema som förekommer i geografisk mobilitets forskning. Att söka i tidskrifter från olika discipliner inom samhällsvetenskap är särskilt viktigt eftersom ämnet är tvärvetenskapligt. Först gjordes en sökning med hjälp av nyckelord i bibliotekets databaser, därefter valdes artiklar ut som enligt rubriker och sammanfattningar visade relevans för ämnet.

I Studier II och III används registerdata från Gothenburg Educational Longitudinal Database (GOLD). GOLD innehåller information om alla individer födda mellan 1972 och 1995. Information består bland annat av utbildningsinformation, inkomstuppgifter, yrke, civilstånd, nationell bakgrund och föräldrars utbildning.

### **Population**

I Studier II och III som ingår i denna avhandling utgår ifrån den totala populationen av individer födda mellan 1973 och 1982 och som bodde i Sverige vid 16 års ålder. De senaste uppgifterna är från 2012 då individerna var i åldrarna 29 till 38 år. Högskoleutbildade individer står i fokus i Studie II och III. De högskoleutbildade definieras som individer som genomfört minst 120 högskolepoäng (dvs. två års heltidsstudier). Detta är det minsta antalet högskolepoäng som krävs för att få högskoleexamen (UHR, 2013). I Studie II undersöks de individer som har studerat vid högskola minst 75 procent heltid under två år. Denna parameter baserades på kravet för att få studielån för högre utbildning (SFS 1999: 1395). Med hjälp av parametern kan individer vars huvudsakliga verksamhet är högre utbildning identifieras. Den högskoleutbildade gruppen reduceras i Studie III till individer som bodde på landsbygden innan de påbörjade högre utbildning.

### **Variabler**

I Studie II undersöktes hur operationalisering av geografisk mobilitet ger olika resultat. För att undersöka skillnader i resultat har binär logistisk regression används. Utfallsvariabeln är ”flytt” respektive ”stanna”. Dessutom undersöktes förflyttning till och från högre utbildning som separata utbildningsövergångar. De olika definitionerna för mobilitet bestod av vanliga mått såsom att flytta mellan län eller kommuner eller att flytta ett visst avstånd (t.ex. att flytta 100 kilometer eller längre). Dessutom ingick två specialutvecklade mobilitetsmått; ett som tar hänsyn till möjlig daglig pendling till lärosäten i förhållande till individens val av lärosäte samt ett mått som tar hänsyn till möjlig daglig pendling från lärosäten.

Könsuppdelad binär logistisk regression användes i Studie III för att undersöka påverkan av det sociala rummet på de högskoleutbildade som ursprungligen kommer från landsbygden och deras etableringsort/region efter

utbildningen. Den beroende utfallsvariabeln “etableringsregion” har två kategorier – storstad och landsbygd.

De faktorer som användes i de logistiska regressionsmodellerna representerar en individs sociala rum. Därför representerar de oberoende variablerna ekonomiskt och kulturellt kapital och demografiska uppdelningar såsom typ av lärosäte, utbildningsområde, kön och föräldrars utbildning.

## **Analysmetoder**

Resultatet av de logistiska analyserna presenteras i form av genomsnittliga marginaleffekter. Fördelen med marginaleffekter är att de är opåverkade av skillnader i okänd heterogenitet som hör samman med de olika förklaringsvariablerna som ingår i analyserna. Detta innebär att de genomsnittliga marginaleffekterna kan jämföras mellan grupper i motsats till oddskvoter (Mood, 2010). Det kan t ex vara problematiskt att använda oddskvoter vid jämförelser mellan män och kvinnor då okänd heterogenitet kan variera mellan grupper. En annan fördel med genomsnittliga marginaleffekter är att metoden tonar ner betydelsen av signifikans och istället betonar praktiska betydelser och mönster resultaten (Williams, 2012). Detta är särskilt viktigt i analyser som använder populationsdata eftersom ingen statistik generalisering är tillämplig (Gorard, 2012; Gorard et al., 2014).

## **Resultat**

### **Studie I**

I studien identifieras tre huvudkategorier av faktorer som påverkar mobilitet och etableringsort efter högskoleutbildning – regionala karakteristika (t.ex. den lokala ekonomin, levnadskostnader och löner och befolkningstäthet), utbildningskapital (Bourdieu, 1986) (t.ex. utbildningsområde, typ av lärosäte och tidigare utbildningsprestationer) och demografi (t.ex. kön, nationell bakgrund, ålder och tidigare geografisk mobilitet). Denna studie visar att majoriteten av forskning om högskoleutbildades mobilitet genomförts i kulturgeografi och ekonomi. Därför används ofta ekonomiska teorier för att förklara mobilitet bland de högskoleutbildade. ”Det sociala rummet” föreslogs som ett användbart begrepp för att underlätta en relationell tolkning av de faktorer som påverkar mobilitet. Fyra filosofiska utgångspunkter fick utgöra exempel på hur det sociala rummet kan förstås. Av dessa fyra valdes

Bourdieu's definition av det sociala rummet, en så kallad "social-spatial teori", fram som ett lovande sätt att utveckla ett pedagogiskt perspektiv på mobilitet i relation till högre utbildning.

### **Studie II**

Resultaten tyder på att faktorer relaterade till det sociala rummet och den geografiska placering av högre utbildning (t.ex. utbildningsområde och studieort) skiftar väsentligt när olika mått på mobilitet används. Mobilitetsmått som tar hänsyn till möjlig daglig pendling istället för strikta administrativa gränser eller strikta avstånd ses som mest lämpliga för operationalisering av mobilitet relaterad till högre utbildning, mått som står den rumsliga organisationen av högre utbildning närmast.

### **Studie III**

Huvudresultaten från denna studie visar att män och kvinnor som har barn, låga betyg från gymnasieskolor, eller studerar inom utbildning eller skogsbruk/lantbruk flyttar åter till landsbygd. Resultaten visar också att kön interagerar med en individs ekonomiska och kulturella kapital när det gäller val av etableringsort efter utbildning. Till exempel påverkar föräldrautbildning, studerar inom utbildning och skogsbruk/lantbruk och studieplats män och kvinnor på olika sätt.

## **Bidrag**

Det huvudsakliga bidraget av denna avhandling är resultaten av de tre studierna och den integrerade diskussion, som använde Bourdieus begrepp "socialt rum" – ett nytt perspektiv inom forskning om geografisk mobilitet bland högskolautbildade. Vidare har varje studie bidragit med att utveckla forskning om geografisk mobilitet bland högskoleutbildade med ett utbildningsvetenskapligt perspektiv.

Det huvudsakliga bidraget i Studie I är införandet av begreppet "socialt rum" för att öka förståelsen av mobilitet i relation till högre utbildning. Merparten av studier om geografisk mobilitet har sitt ursprung i ekonomi och kulturgeografi vilka fokuserar på ekonomiska och geografiska faktorer. Med begreppet sociala rummet betonas sociala framför geografiska sammanhang, men behåller samtidigt relationen dem emellan. Denna studie bidrar därför



med ett alternativt och utbildningsvetenskapligt perspektiv för att tolka och förstå flyttbenägenhet bland högskoleutbildade.

Det huvudsakliga bidraget i Studie II är en diskussion om hur beaktande av den rumsliga placeringen av lärosäten kan bidra till att utveckla metodologiskt mer precisa sätt att bedöma förekomst av mobilitet i relation till högre utbildning. Denna strategi, att utforma och pröva ett specifikt mobilitetsmått för högre utbildning i förhållande till traditionella mått (konstruerade av administrativa gränser t.ex. kommuner, län eller bestämda sträckor) ger ett annat bidrag, det vill säga måttet förlitar sig inte bara till ett mått utan tar också hänsyn till det specifika sammanhang i vilket högre utbildning ingår såsom lokalisering, kommunikation och utbildningsutbud.

Det huvudsakliga bidraget i Studie III är en analys av etableringsregion efter högskoleutbildning med hjälp av begreppet ”socialt rum”, hellre än ett ekonomiskt perspektiv. Speciellt fokus på kön i det sociala rummet, tydliggör påverkan av hierarkiska sociala struktur som finns på arbetsmarknaden. Av speciellt intresse är fokus på landsbygden eftersom forskning till stor del intresserat sig för urbana regioner (Rerat, 2014).

## Diskussion och Slutsatser

Genomgående i denna avhandling är den ömsesidiga karaktären av det sociala rummet och geografisk mobilitet (dvs. hur mobilitet påverkar och påverkas av det sociala rummet). Få studier i disciplinen pedagogik har uppmärksammat att geografisk mobilitet är relaterat till (mönster av) sociala positioner (Lindgren & Lundahl, 2010). Denna avhandling bidrar till att synliggöra detta beroendeförhållande

De tre studierna visade att olika aspekter av en individs position i det sociala rummet påverkar flyttbenägenhet. Dessutom påverkar den rumsliga placeringen av lärosäten och deras utbildningsprofil flyttbenägenheten till och från högre utbildning. De sammanlagda resultaten av dessa tre studier stöder uppfattningen att geografisk mobilitet är relationell. Nämligen att mobilitet bland högskoleutbildade bestäms av samspelet mellan individuella faktorer och lokalisering av lärosäten och deras karaktäristika.

Positioner i det sociala rummet är inte statiska utan kan förändras (Massey, 2005). Individers utbildningsval, liksom mobilitet efter högskoleutbildning, påverkar sammanlagt deras positioner i det sociala rummet efter utbildning. Till exempel diskuteras i Studie III hur individer som väljer

## SVENSK SAMMANFATTNING

utbildningsområden atypiska för deras kön, är mindre benägna att flytta till områden med traditionella könsstrukturer (t.ex. landsbygd) efter högre utbildning. Med hjälp av en högskoleutbildning kan dessa individer använda mobilitet, som en strategi för att minska negativ ofördelaktig könspåverkan på deras positioner i det sociala rummet.

På liknande sätt visas i Studie II att mobilitet bland de högskoleutbildade kan användas som en strategi för att minska påverkan från de geografiska förhållandena på deras position i det sociala rummet. Till exempel visas i Studie II att de högskoleutbildade som studerade skogs-/lantbruk, medicin/odontologi eller konst tvingas att flytta från regionen där de hade studerat. Bland annat därför att alla inte kan hitta ett för sin utbildning adekvat arbete i samma region som där de studerat. Att stanna kan försämra deras positioner i det sociala rummet men mobilitet kan vara en strategi för individer att bevara sina positioner i det sociala rummet som de skapat under högskoleutbildningen.



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# Appendix

## Appendix A



Universities and University Colleges in Sweden (UKÄ, 2017)



## **Universities**

Chalmers University of Technology **5**  
University of Gothenburg **5**  
Stockholm School of Economics **6**  
Karlstad University **13**  
Karolinska Institutet **6**  
KTH Royal Institute of Technology **6**  
Linköping University **8, 9**  
Linnaeus University **14, 15**  
Luleå University of Technology **10**  
Lund University **3, 4**  
Mid Sweden University **17, 18, 19**  
Stockholm University **6**  
Swedish University of Agricultural Sciences **1, 7, 11, 12**  
Umeå University **7**  
Uppsala University **1, 2**  
Örebro University **16**

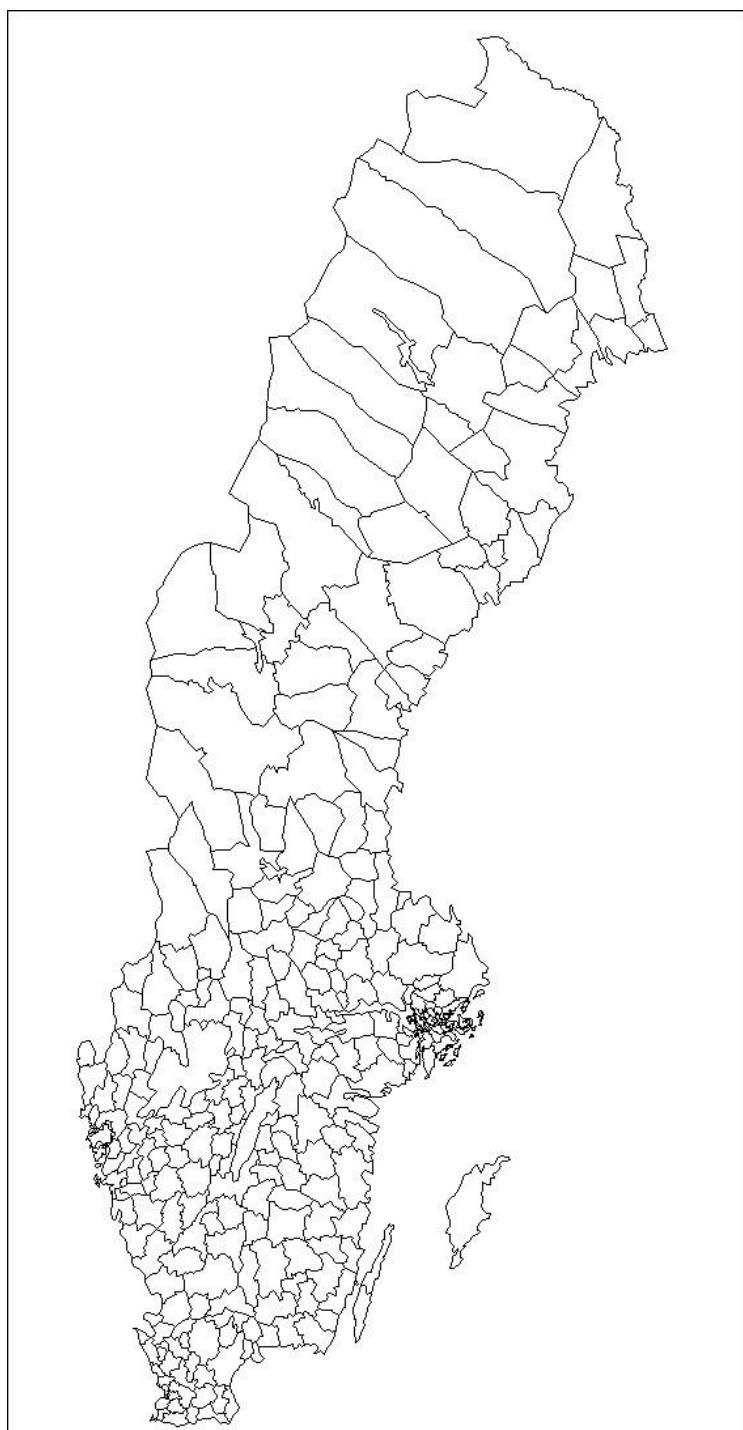
## **University Colleges**

Beckmans College of Design **6**  
Blekinge Institute of Technology **20**  
The Erica Foundation **6**  
Ersta Sköndal Bräcke University College **6**  
Swedish Defence University **6**  
Gammelkroppa School of Forestry **33**  
The Swedish School of Sport and Health Sciences **6**  
University of Borås **21**  
Dalarna University **22, 23**  
Evidens University College **5**  
University of Gävle **24**  
Halmstad University **25**  
Kristianstad University **27**  
University of Skövde **28**  
University West **29**  
Johannelunds Theological Seminary **33**  
University College of Arts, Crafts and Design **6**  
Royal Institute of Art **6**  
Royal College of Music in Stockholm **6**  
Malmö University **30**  
Mälardalens University **31, 32**

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Newman Institute **1**  
The Red Cross University College **6**  
Stockholm Academy for Psychotherapy Training **6**  
Sophiahemmet University **6**  
Jönköping University **26**  
Stockholm University of the Arts **6**  
University College of Music Education in Stockholm **6**  
The Swedish Institute for CBT & Schema Therapy **6**  
Södertörns University **6**  
Stockholm School of Theology **6**  
Örebro School of Theology **16**

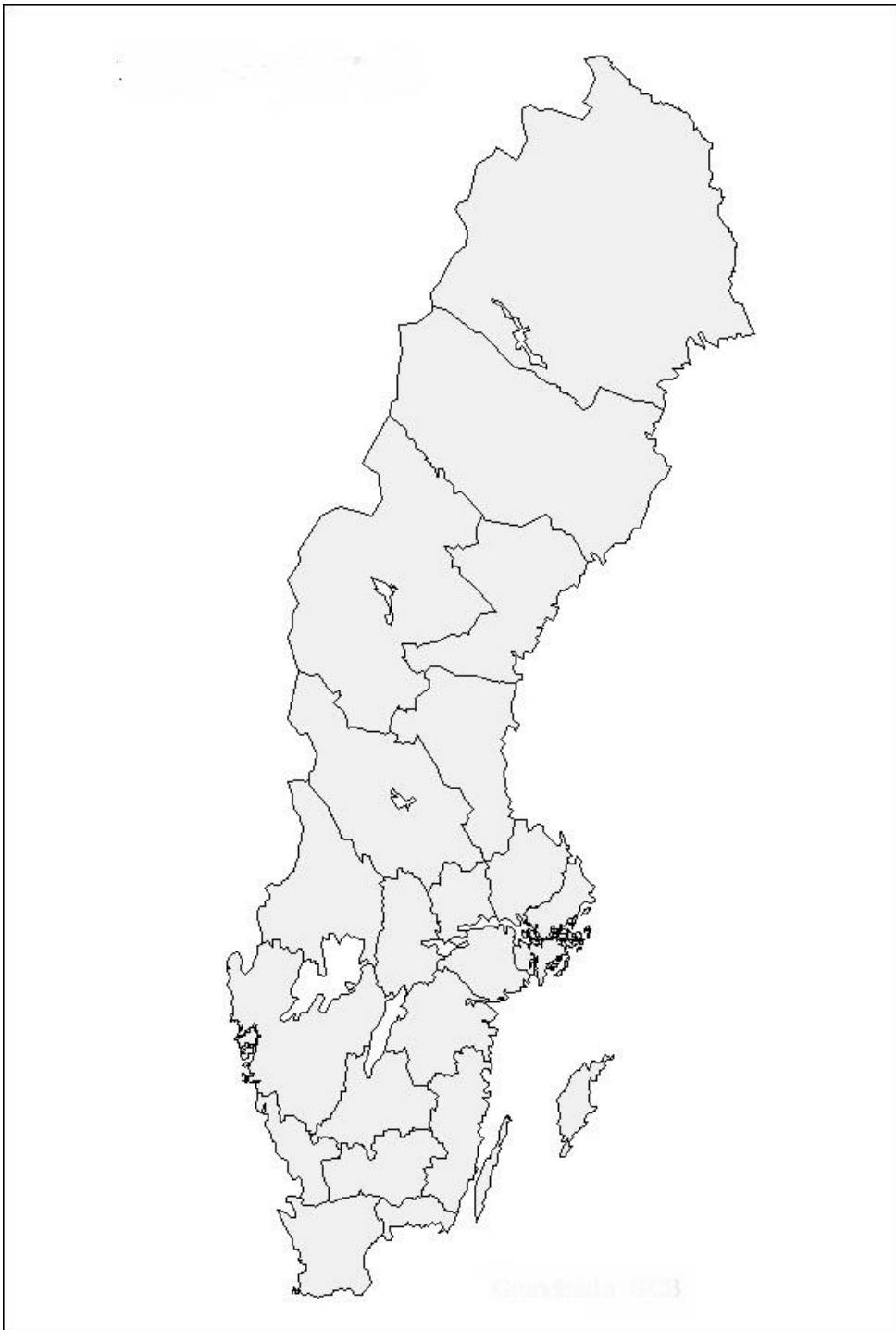
Appendix B



Municipal Divisions (Statistics Sweden, 2017)

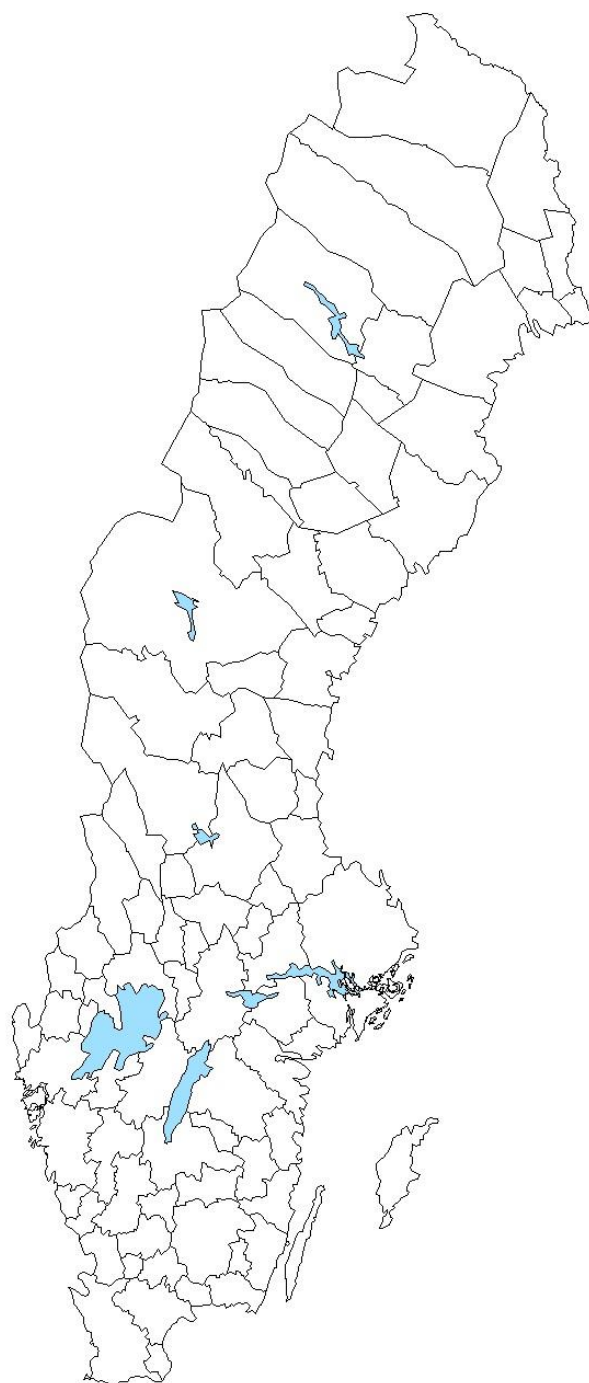
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### Appendix C



County Divisions (Statistics Sweden, 2017)

## Appendix D



Labor Market Area Divisions (Statistics Sweden, 2017)

## Studies I-III

### Study I

Haley, A. (2016). Through a social space lens – Interpreting migration of the tertiary educated. *European Educational Research Journal*, 15(4), 480-490. DOI: 10.1177/1474904116630316.

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### Study II

Haley, A. (2017a). Defining geographical mobility: Perspectives from higher education. *Geoforum*, 83, 50-59. DOI: 10.1016/j.geoforum.2017.04.013.

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### Study III

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