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Which families move out from metropolitan areas? Counter-urban migration and professions in Sweden

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Abstract

This paper seeks to contribute to the ongoing revitalisation of the counterurbanisation research within population geography by nuancing counter-urban migration beyond the rural-urban dichotomy, including all moves downwards in the urban hierarchy. The focus is to explore counter-urban migration patterns among families with children leaving the Swedish metropolitan areas, and whether some groups of skilled professions are more likely to make a counter-urban move than others. Using register data on all families moving out from metropolitan areas in Sweden during the period 2003-2013, we found a small but steady outflow of families, mainly to medium-sized or small towns. The highly educated are overrepresented among these families, thus providing potential for an inflow of competence to the receiving areas. Contrary to expected, the assumed flexibility in time and space among *knowledge sector professionals* does not seem to enable them more than others to pursue counter-urban moves. Instead, *public sector professionals* characterise families making a counter-urban move to all destination regions, while men with a profession within *arts and crafts* to a higher extent move with their family to more rural areas.

Keywords: competing-risk, counter-urban migration, counterurbanisation, families, profession

Introduction

We are seeing rapid urban growth in Sweden, as in the rest of Europe, and many rural areas are struggling with declining populations. Despite this overall trend there is also a counter stream, leaving the metropolitan areas (ie Aner, 2016; Hansen and Aner, 2017). Families with young children are part of the migration stream out of metropolitan areas (Hansen and Aner, 2017; Niedomysl and Amcoff, 2011). Couples of working age with young children are particularly attractive as in-migrants for local communities, since they both contribute by counteracting population decline and population ageing, but are also often perceived as important for the rejuvenation of rural economies (Bosworth and Atterton, 2012; Roberts and Townsend, 2016).

It can be argued that the preconditions for counter-urban migration have changed in recent decades. The rapid urban growth implies challenges whereby, for instance, a crowded housing market in many metropolitan areas makes it more difficult to fulfil an aspiration of home ownership. Families with young children may deploy a strategy of accepting longer travel times to work in search of suitable and affordable housing. Another strategy could be to relocate to a smaller labour market in order to find more desirable housing and work at a shorter and more acceptable distance. Making such a counter-urban move is often framed as a form of lifestyle migration (Eimermann, 2015; Halfacree, 2014; Hoey, 2014). Family ties and a desire for a less stressful life are often important reasons for such moves (Hansen and Aner, 2017). However, while families can have a strategy of ‘downshifting’ and escape from urban life, not everyone has the possibility, when it comes to employment opportunities, to make the move and fulfil their lifestyle aspirations. Developments in transportation, information and communication technologies in recent decades, as well as an increased geographical and time flexibility of labour markets – whereby many workplaces are less tied to a particular location and set working hours – are creating new spatial conditions in which people can manage their everyday lives and facilitate their decision to move from highly urbanised areas (Vilhelmson and Thulin, 2013). The opportunities to take advantage of the changing labour market are unevenly distributed, however, both geographically and of course depending on one’s profession and employer. Some sectors or professions are less tied to specific locations, while others still demand daily presence.

Acknowledging that the preconditions for counter-urban moves are changing, this paper will explore recent counter-urban migration patterns of families with children resettling outside the Swedish metropolitan areas. We seek to understand the influence of a family’s socioeconomic situation, with a focus on skilled professions, on counter-urban patterns. The focus here is on moving the whole family project out of the metropolitan context, beyond the suburban areas, to another type of region, downwards in the urban hierarchy. The following research questions will be addressed:

1. Who are these counter-urban movers? How do they differ from families with young children staying in metropolitan areas?
2. Are some groups of skilled professions more likely to move than others?

3. Are there differences when distinguishing between moves to medium-sized or small towns and those to small settlements or rural areas?

This study thereby challenges the traditional narrative of counterurbanisation, in line with contemporary counter-urban research (Bijker and Haartsen, 2012; Grimsrud, 2011; Halfacree, 2008), in which increasing attention is being given to movers and destinations that do not fit the ‘typical’ counter-urban movement of the middle class to an idyllic rural setting.

Background

The intensity of internal migration in Sweden increased during the 1990s, as a result of an expansion of higher education (Kulu et al., 2018). In general, most migrants are in their 20s, while migration propensity declines sharply after the age of 30 (Lundholm, 2007). Only 40 out of 290 municipalities in Sweden managed to maintain or increase the size of a cohort of 18-year-olds over a seven year period (Mellander and Bjerke, 2017). Even though the inflow of people of working age is only a small counter stream in many smaller local labour markets, it can be essential to attract such movers, especially the educated and skilled, downwards in the urban hierarchy. A lack of educated labour has been identified as a major challenge for the future in these regions (Prop.18/179, 2017). Securing competence in welfare services, as well as in knowledge-intensive industries, is mentioned by the Swedish government (ibid) as particularly important. Families could be a potential group that is attracted by the living conditions in more rural settings; in a study on return migration among Swedish university graduates, Bjerke and Mellander (2016) found that those who had children were more likely to move back to a rural region after graduation.

The association between family events and residential mobility has been well studied. For example, family formation events such as getting married or having a first child are associated with high residential mobility (Coulter and Scott, 2015; Geist and McManus, 2008; Michielin and Mulder, 2008). But interregional migration can also be associated with the event of childbearing (Lindgren, 2003). Kulu (2008) found that especially the birth or anticipation of a second child served as a trigger for migration from urban to rural areas in Austria.

Counterurbanisation

Counterurbanisation can be defined as migration movement downwards in the urban hierarchy (Champion, 1989; Mitchell, 2004). Rural in-migration has long been viewed along the lines of what Halfacree (2008) calls ‘mainstream counterurbanisation’: the movement of middle-class families starting a new life in an idyllic rural setting. In explaining the motives behind counterurbanisation, early classical studies of counterurbanisation stressed either the economic restructuring and the related urban-rural shift in employment (job-led motivations) (Champion, 1989; Fielding, 1982; Frey, 1987) or quality of life (people-led motivations) (Grafton and Bolton, 1987; Moseley, 1984) as the most important motives underpinning

counterurbanisation. In recent years, this general conceptualisation of the stereotypical rural in-migrant has been criticised as being overly simplistic and consequently reducing the complex interplay of factors affecting the decisions to move (Bijker et al., 2013; Grimsrud, 2011; Halfacree, 2008; Stockdale and Catney, 2014). In explaining counter-urban moves, researchers have increasingly approached typologies of migrants based on differences in motivation for rural in-migration. Mitchell (2004) nuanced the picture of downward moves in the urban hierarchy, discussing how economic as well as quality of life motives are associated with the migration decision. She identified an additional category of counter-urban movers she calls 'displaced', referring to people moving to rural areas as a response to economic hardship, for instance as a result of unemployment, in search of lower housing costs. Halfacree (2008) makes an alternative classification, distinguishing three groups of rural migrants (regardless of origin) based on how they attach relevance to the rural character of their destination and whether economic reasons are motives for the move. Halfacree's model suggests two additional categories of migrants besides the conventional 'mainstream counterurbanisation' of middle-class families moving to the 'rural idyll'. 'Back-to-the-land' counterurbanisation involves migrants for whom rurality is most central and rural life is seen as being in opposition to an urban lifestyle; in these cases, the lifestyle is radically different after the move. The third group labelled 'default counterurbanisation', is a group for whom the rural setting is not the driver for moving but rather practicalities such as employment or family networks. Bijker et al. (2013) confirmed the distinction between 'default' and 'mainstream' counterurbanisation in a survey in the Netherlands, where practical and instrumental incentives were more common among movers to 'less popular' rural areas (based on property prices), compared to movers to more popular rural areas who emphasised the physical qualities of the rural environment more. In a Norwegian survey, Grimsrud (2011) concluded that motives among movers to rural areas (especially more remote ones) were in most cases better described as 'default counterurbanisation' than 'mainstream counterurbanisation'.

Counter-urban research conducted in a Swedish context has mainly focused on migration to areas perceived as truly rural, and has covered issues such as how out-migration from cities affects the rural population development (Westlund, 2002; Westlund and Pichler, 2013) and the countryside's labour markets and economic life (Bjerke and Mellander, 2016; Eliasson et al., 2015; Hjort and Malmberg, 2006; Lindgren, 2003). Other Swedish studies have focused on who the counter-urban movers are (Bjerke and Mellander, 2016; Hjort and Malmberg, 2006; Lindgren, 2003), on comparing movers from urban to rural areas with those moving in the other direction, and on preferences for migration to rural areas (Niedomysl and Amcoff, 2011). Hedberg and Haandrikman (2014) have studied the diversity of international migration to rural areas in Sweden. A novel contribution of this paper is that it includes the whole spectrum of non-metropolitan destinations. We thereby seek to contribute to the ongoing revitalisation of the counterurbanisation research within population geography, by nuancing counter-urban migration beyond the rural-urban dichotomy, including all moves downwards

in the urban hierarchy and further by specifically investigating whether some groups of skilled professions are more likely to take on a counter-urban move.

Professions and migration

Within the lifestyle migration research, increasing focus is being placed on the phenomenon of ‘downshifting’ (Hamilton and Mail, 2003; eg Verdich, 2010). This means that the acquisition of a better quality of life as well as family commitments, environmental concern, and a less stressful lifestyle are often mentioned as deciding factors by migrants (Verdich, 2010). Previous research has portrayed creative workers and other skilled professionals as typically attracted to this downshifting lifestyle (e.g. Luckman, 2015; Verdich, 2010). For example, an Australian study focusing on creative skilled workers migrating out from metropolitan areas found that the main motive for moving was that expensive accommodation and the urban lifestyle were no longer desirable or sustainable when they began having children. There is also a trend in Australia of young families (age 30-39) resettling outside the inner city to raise their children (Luckman 2015). A study from Tasmania, focusing on young adults with a creative occupation or other skilled professions, the majority in a relationship and with children, migrating to Launceston shows that these migrants had a desire to create a more balanced life (Verdich, 2010). They were attracted to the characteristics of a more rural life, such as outdoor amenities, downshifting, time with family, proximity to nature, and strong sense of community. Although economic aspects, such as better income or job opportunities, were relevant for some migrants, the key reasons for moving were better quality of life or family commitments. Thus, this as well as Luckman’s research shows how downshifting challenges the ideas concerning economic rationality in many of the migration studies, assuming that the move is purely an economic decision. The research also illustrates how rural and small-scale characteristics can act as ‘pull’ factors for creative and other skilled workers and their families. This is in contrast to Florida’s (2002) idea of metropolitan lifestyle factors as attraction among creative workers, migration in Luckman and Verdich research was rather driven by lifestyle factors that were considered unobtainable in larger metropolitan cities. However, many of these studies are case studies, and less is known regarding this phenomenon more generally or regarding whether these categories of professionals that typically appear in these case studies are in fact more prone than others to choose counter-urban migration. While some families might have a desire and an imaginary picture of how daily life outside the metropolitan area could be, not everyone will have the possibility, when it comes to employment opportunities, to make the move and resettle somewhere else to fulfil their lifestyle aspirations.

From the human capital theory perspective, the return gained from migration differs depending on a person’s position on the labour market in terms of occupation. High education often implies better career opportunities, and hence more incentives to move. Further, the spatial distribution of employment differs between the private and public sectors, with private sector jobs typically more concentrated to urban areas (Hansen and Winther, 2014). Occupations with high spatial ubiquity (such as service sector jobs, public or private)

lower the migration propensity due to fewer career opportunities, smaller wage differentials, and lower status in general (Morrison and Lichter, 1988). In the literature on couples migration, this has often been posited as an explanation for why women, who are more often in public sector occupations, tend to become trailing spouses adjusting to the career of their husband (Brandén, 2013; Halfacree, 1995; Perales and Vidal, 2013; Shauman, 2010). Thus, human capital migration theory assumes that persons in occupations with fewer career opportunities have fewer incentives to move, and therefore move less often. However, in this paper we argue that having an occupation with better geographical accessibility to jobs, and perhaps less to lose in terms of career opportunities, can instead trigger migration if couples have lifestyle incentives to move. This is in line with the finding of Brandén (2013) that couples in which both partners were in occupations with higher geographical ubiquity were the most inclined to migrate between local labour markets in Sweden. We therefore hypothesise that couples in which either spouse has a *public sector profession* would be more likely to make a counter-urban move.

While public sector professionals have the benefit of geographical ubiquity of employment opportunities, other professions could serve to enable migration through being more detached from geographical location, thereby permitting more freedom of choice regarding where to live. Those employed within *arts and crafts occupations* are typically not place-bound to workplaces and ‘nine-to-five’ workdays in the same way as more traditional wage-workers are. This is therefore a group that could be potentially more inclined to move to rural areas; not only because the rural landscape can be an environment for inspiration, for instance for visual artists (Mitchell, 2004), but in addition, moving out from the urban areas could also be a result of economic necessity for a group with irregular and often low income (ibid).

Another group generally less tied to a specific workplace is those with a profession within the private sector in general and within what can be called *knowledge economy*. These sectors are assumed to have more time-space flexibility, whereby one is not expected to be in the office five days a week (Felstead, 2012), which could enable people to move out from a metropolitan area. In this group we expect to find workers with possibilities to, for instance, keep a job in the city, work from home a few days a week, and commute long distances the other days. Home-anchored work is argued to be on the increase, mainly facilitated by ICT and in jobs characterised by high education and status (Laegran, 2008). Andersson et al. (2018) found that there is an increase in rural residents in Sweden working at a distance from metropolitan areas, and that highly educated persons in knowledge-intensive occupations are strongly overrepresented. Further, it was found that persons in these occupations were more likely to become long-distance commuters by moving to a rural area, compared to other groups who tended to become long-distance commuters by starting to work for a metropolitan employer while living in a rural area (ibid). A similar result was found in Britain where higher status workers generally tended to keep their job in urban areas and become long distance commuter after moving to rural areas (Brown et al., 2015).

It can also be argued that those who are self-employed would have better opportunities for making residential decisions, independent of the location of an employer. On the other hand, entrepreneurship is often described in the economic and economic geographic literature as a highly localised activity, dependent on local knowledge and networks (Audretsch et al., 2012; Dahl and Sorenson, 2009). There are case studies (eg Herslund, 2012) in which it was found that lifestyle can be an important motive for entrepreneurs within the creative and knowledge sectors to move from urban to rural areas. In addition, the self-employed make up an appealing group of potential counter-urban movers from a policy perspective, since such rural residents can create their own employment and contribute to local economies (Findlay et al., 2000; Roberts and Townsend, 2016). Providing ties between the local and extra-local, in-migrant business owners could enhance rural development (Bosworth and Atterton, 2012). In popular media as well, entrepreneurship is a prominent theme, with portrayals of 'attractive rural living' (Jonasson, 2012). Some case studies have shown that in-migrants tend to be involved in entrepreneurial activities more often than locals, and that self-employment makes significant contributions to local communities (Mitchell and Madden, 2014; Stockdale, 2006). However, there are other studies based on register data in which in-migrants to rural areas rather exhibit a lower self-employment frequency compared to rural stayers (Eliasson et al., 2015).

Data and method

Data

In this study, register data from Statistics Sweden is used to identify the characteristics of families with young children who out-migrated from metropolitan areas during the period 2003-2013 in Sweden, and explore how they differ from families who stayed in these metropolitan areas. Information about the family is derived from longitudinal data in which individuals are linked to households if married or having children in common and being registered at the same address. The data contains annually updated information on place of residence, income, education level, age, occupation, and number and age of children in the household. As the data covers the total population, it is possible to analyse all counter-urban moves, here defined as moving out from a metropolitan area of Stockholm, Malmö or Gothenburg to any part of Sweden – metropolitan hinterlands, cities, towns and small settlements – thus not limiting the analysis to rural areas. The data hence makes it possible to shed light on how the settlement size at destination affects counter-urban migration behaviour. In our data, a family's place of residence is where they live in December each year. This means that migration is defined as a change in place of residence from one year to another.

To analyse young families' counter-urban moves out from the Stockholm, Malmö, and Gothenburg metropolitan areas during 2003-2013, we have first identified the at-risk

population as all households in Sweden that were: a) either cohabiting or married¹ and b) aged 25-40 years, c) with children younger than 13 years, and d) who had lived at least three years in a metropolitan area. We analysed all counter-urban moves for the period 2003-2013 among these families. Families migrating within a metropolitan area or to another metropolitan area are in the analysis referred to as families staying in a metropolitan area. The metropolitan areas are defined according to Statistics Sweden's definition, comprising the three largest cities in Sweden – Stockholm, Malmö, and Gothenburg – and their surrounding areas (Statistics Sweden, 2015). This definition is based on statistics on commuting and migration between the municipalities, and cooperation in spatial planning within each region. The classification of destinations into 'medium-sized or small towns' and 'rural areas or small settlements' is based on the Swedish Association of Local Authorities and Regions division of municipalities divided into a total of nine groups based on structural parameters, such as population and commuting patterns (Gillingsjö and Ekholm, 2016).

Explanatory variables

Included in the analysis are several time-varying covariates with information on socioeconomic and demographic characteristics of the families. Source of income indicates whether one or both in the household have an income from *employment*, *parental allowance*, *self-employment* or *student benefits* (Table 1). A spouse with no income from either transfers (parental allowance or student benefits) or employment/self-employment was coded *not employed*. *Household disposable income* is used to categorise the household into one of four income-level groups based on quartiles. *Education level* is categorised into two levels based on the highest educational attainment each year for each of the spouses (no post-secondary education or post-secondary education). We use two education variables indicating whether one or both spouses in a couple are highly educated.

A key variable is occupation, based on the Swedish Standard Classification of Occupations 2012 (Statistics Sweden, 2012). This is a system for classifying and aggregating data on occupations in administrative registers or statistical surveys. In turn, this classification is based on the International Classification of Occupations 2008 (ISCO-08). For our purposes, we have created variables indicating three different types of skilled professions. First, we have identified professions that can be associated with the knowledge economy, in which occupations are typically knowledge-intensive and specialised; for example, computing professionals, architects and engineers, and related professionals. People with such professions were labelled *knowledge sector professionals*. We assume that these professions are generally less tied to a specific location and have relatively flexible working hours, which could enable those holding such positions to move out from a metropolitan area. This definition is based on previous studies on professions involving 'creative skills' (Boschma and Fritsch, 2009; Eriksson and Hansen, 2013), a group perceived as highly mobile (Hansen and Niedomysl, 2008). The second skilled professional group we have identified is *public*

¹ Having a partner refers to being married, having a registered partner, or cohabiting with common children.

sector professionals, for example teachers, nurses, and physicians. We assume people in these professions could find employment opportunities matching their competence in various settlement sizes. Those within the *arts and crafts* professions are defined as the third professional group. This group includes, for example, writers, artists, photographers and handicraft workers, who are often portrayed as not place-bound and are sometimes mentioned in the counter-urban literature as bohemians with a preference for rural living (Benson and O'Reilly, 2009). Those working in the occupational categories above are identified in the literature as potentially more likely than others to become counter-urban movers. The reason for the focus on professionals (mainly in occupations requiring higher education) is that these groups have invested in a higher education and thereby have incentives to stay in their occupation after a move.

Since all variables are measured annually, we measured household disposable income, education, occupation, self-employment the year before the move. This was done to isolate the effect of factors prior to the move and avoid incorporating any effects of the move on employment and income that would occur when measured the same year as the relocation. Exceptions to this are the variables indicating whether one member of the household is on parental leave or enrolled in studies, which are measured the same year as migration. This is because each of these factors can be seen as a trigger and facilitator of the timing of migration. For example, parental allowance means having one secure source of income in the transition. The variable *Swedish*, representing whether or not both spouses in a couple are born in Sweden, is a fixed variable.

Methods

We have used discrete-time event-history models (Allison, 1982; Yamaguchi, 1991) to examine the socioeconomic and occupational determinants of families' counter-urban moves. Unlike standard logistic regression, event-history models have the ability to examine the impact of time-varying covariates, such as occupation or family situation from year to year, on the outcome of an event. For example, a family's household composition (i.e. number of children) or employment situation (i.e. new job or unemployment for one spouse) may change over time, and this can have an effect on the probability of moving out from a metropolitan area. We use *year* as our interval and *couple* as the unit of analysis.

Our modelling strategy consists of three steps. First, in Model A, we look at the impact of family characteristics on the probability of out-migrating from a metropolitan area. Model A is a discrete-time logistic regression in which the dependent variable is the probability of migrating in a given year, conditional on whether the family was still living in a metropolitan area the year before. For the second and third models, B and C, we use competing-risk models that take into account the geographical type of destination region. The dependent variables are: (1) the conditional probability of migrating to a medium-sized or small-town area versus not moving, and (2) the conditional probability of migrating to a rural area or

small settlement versus not moving. For both dependent variables, the other type of migrating is treated as a competing risk (Allison, 1982).

To implement the event history analysis, we restructured the data into a household-year dataset containing information for each household each year. We start following a household as a family the year they fulfill the requirements of being in the population at risk (a couple in the age of 25-40 years, having children younger than 13 years, and have lived at least three years in a metropolitan area). All families in the sample were followed until their first move out from the metropolitan area, or until 2013 if the family remained in the metropolitan area. Those who leave a metropolitan area (and later return to a metropolitan area) are censored at the time of migration. We stop following families in the data (censored) if one of the parents reaches age 40, if they separate, or if one or both members of the couple dies or emigrates. Hence, we follow only intact couples in which both spouses have been established in metropolitan areas at least three years prior to follow-up, and we strive to exclude migration related to couple formation and dissolution.

Additional analyses (not displayed here but available upon request) were run separately for each of the three metropolitan areas of origin. These analyses confirm that our results regarding families' counter-urban migration patterns in Sweden do not differ significantly between the country's three metropolitan areas.

Table 1. Means of independent variables

| Variable | Time period | Mean |
|---|--------------------|-------------|
| No. of children <=12 years | Dynamic | 2 |
| Mean age of couple | Dynamic | 35 |
| Swedish, both in couple native-born | Fixed | 70.42% |
| Household disposable income, SEK^a | Dynamic, t-1 | 512,500 |
| Both in couple highly educated | Dynamic | 35.17% |
| One in couple highly educated | Dynamic | 27.61% |
| Self-employed, woman | Dynamic, t-1 | 4.63% |
| Self-employed, man | Dynamic, t-1 | 9.69% |
| Profession, woman | | |
| Other | Dynamic, t-1 | 67.31% |
| Knowledge sector professionals | Dynamic, t-1 | 4.79% |
| Public sector professionals | Dynamic, t-1 | 15.86% |
| Arts and crafts professionals | Dynamic, t-1 | 2.66% |
| Unknown | Dynamic, t-1 | 9.39% |
| Profession, man | | |
| Other | Dynamic, t-1 | 72.19% |
| Knowledge sector professionals | Dynamic, t-1 | 12.44% |
| Public sector professionals | Dynamic, t-1 | 6.77% |
| Arts and crafts professionals | Dynamic, t-1 | 2.83% |
| Unknown | Dynamic, t-1 | 5.77% |

| | | |
|--------------------------------------|--------------|---------|
| Not employed, woman | Dynamic, t-1 | 5.29% |
| Not employed, man | Dynamic, t-1 | 4.11% |
| Parental leave, one in couple | Dynamic | 18.78% |
| Student, one in couple | Dynamic | 6.18% |
| Number of households | | 252,531 |

Note: See text in Methods section for detailed definition of variables.

a) 100,000 SEK is approximately 9,770 Euro (January 2019).

Descriptive statistics

The sample consists of a total of 252,531 young families (dyads) (Table 1), and the total number of household-years is 989,649. Among the majority of these young families both parents are Swedish-born, and in about one-third of the couples both spouses are highly educated. Among the three professional groups in focus in this paper (corresponding to about 30% of the population at risk), women dominate within the public sector profession while men have a profession within the knowledge economy to a higher extent. Around 10% of the fathers and 5% of the mothers were self-employed.

A total of 6,343 of these families made a counter-urban move within the period studied, of which 3,812 (4.5%) moved to a medium-sized or small town and 2,531 (2.9%) to a rural area or small settlement. Thus, 3.7% of the studied families moved out from a metropolitan area during the years 2003 to 2013.

As a counter-urban move is defined as moving out from a metropolitan area, most of the moves are relatively long. Among the studied families, the majority of young families making a counter-urban move, over 50%, moved at least 170 km. Moreover, as the distance is measured in Euclidean distance, this means that the physical distance is long enough to assume that these families are actually moving out from a metropolitan context rather than making a suburban move. The group of families moving a shorter distance is small, with 10% moving a distance shorter than 42 km.

Results

Our research confirms a small but steady outflow of families with young children from the Swedish metropolitan areas during the period 2003-2013. We observe increasing migration intensities during the years 2007-2009 compared to 2004-2006 (Table 2, Model A). Overall, the families were more prone to migrate to medium-sized or small towns (Table 2, Model B).

As expected, there are relationships between profession and the families' counter-urban migration patterns. Regarding the expected relationship between professions that can be classified within the knowledge economy and an increased likelihood of counterurbanisation, we find no evidence that families with young children in which one member of the household has a profession within the knowledge sector are more likely to move out from a metropolitan

area compared to other families with young children. Nor did we find that they were more likely to stay in metropolitan areas.

Regarding professions within arts and crafts, there is evidence in our results that having such a creative profession increases the odds that families will make a counter-urban move (Model A). The destinations for these families are mainly more rural areas. When the father in the household has a profession within arts and crafts there is a 30% higher incidence of the family moving to a more rural destination, compared to families in which the father has another profession (Model C).

As hypothesised, having a public sector profession, for example teacher, nurse or physician, is related to a significantly higher risk of out-migration from a metropolitan area (Model A). This holds regardless of who in the household has this profession. This is not surprising, considering that these are occupations in which employment opportunities are available in settlements of various sizes. Having a public sector profession is positively associated with counter-urban migration to both smaller towns and more rural areas (Model B and C), for both women and men.

One of the spouses in the household not being employed at the time of the move is not significantly associated with the family's migration decision; nor is self-employment prior to the move a significant factor for the family's decision to leave the metropolitan context. However, being self-employed is a factor related to the family's decision to remain in a metropolitan context: it is significantly more likely (17% higher risk) that the family will continue living in a metropolitan area compared to making a counter-urban move to smaller town (Model B).

Families with young children migrating out from metropolitan areas are not likely to be high-income households. The odds of making a counter-urban move are actually more than 50% higher among families within the lowest income quartile, compared to the highest quartile. We observe significantly decreasing migration intensities to both destination types with rising income levels (Model B, Model C). High education levels, on the other hand, increase the incidence of a counter-urban move. The effect of educational level is observed for counter-urban moves both to medium-sized or small towns, and to rural areas or small settlements (Models B and C).

Counter-urban moves are more common among larger families with more children under age 13 and in families in which one parent is on parental leave. Parental leave is strongly associated with families making a counter-urban move. Number of children has a smaller but significantly positive effect on the probability a family will make a counter-urban move. This can be interpreted as the birth of another child triggering migration and/or the income from parental leave benefits facilitating the move and hence having an effect on the timing of moving.

It is more likely that families in which both parents are Swedish-born out-migrate from metropolitan areas, compared to those in which one or both parents are non-Swedish-born (Model A). These Swedish-born families moved to the countryside to a high extent, being more than twice as likely as non-Swedish-born families to migrate with their children from a metropolitan area to a rural area or small settlement (Model C).

Table 2. Out-migration from metropolitan area: discrete-time logistic regression of out-migration, competing-risk analysis of out-migration from metropolitan area to medium-sized or small town, and competing-risk analysis of out-migration from metropolitan area to rural area or small settlement.

| | Model A: Event-history analysis of out-migrating from metropolitan area (N=989649) | Model B: Competing-risk analysis of out-migrating to medium-sized or small town (N= 989492) | Model C: Competing-risk analysis of out-migrating to rural area or small settlement (N=989501) |
|--|---|--|---|
| Variables | Odds Ratio | SHR | SHR |
| No. of children <=12 years | 1,193*** | 1.086** | 1.125*** |
| Mean age of couple | 0.985*** | 0.968*** | 0.978** |
| Swedish | 1.791*** | 1.608*** | 2.187*** |
| Household disposable income, quartiles (<25% ref.) | | | |
| 25-49% | 0.751*** | 0.765*** | 0.732*** |
| 50-74% | 0.570*** | 0.621*** | 0.526*** |
| 75-100% | 0.481*** | 0.537*** | 0.449*** |
| Both in couple highly educated | 1.816*** | 1.870*** | 1.647*** |
| One in couple highly educated | 1.244*** | 1.218*** | 1.258*** |
| Self-employed, woman | 1.097 | 1.148 | 0.991 |
| Self-employed, man | 0.930 | 0.832** | 1.028 |
| Profession, woman (Other ref.) | | | |
| Knowledge sector professionals | 0.973 | 1.055 | 0.830 |
| Public sector professionals | 1.156*** | 1.142** | 1.178** |
| Arts and crafts | 1.062 | 0.963 | 1.197 |
| Unknown | 0.855** | 0.884 | 0.972 |
| Profession, man (Other ref.) | | | |
| Knowledge sector professionals | 1.047 | 1.119* | 0.913 |
| Public sector professionals | 1.352*** | 1.409*** | 1.263*** |
| Arts and crafts | 1.260*** | 1.226* | 1.311** |
| Unknown | 0.809** | 0.795* | 1.026 |
| Not employed, woman | 1.080 | 1.058 | 1.031 |
| Not employed, man | 1.004 | 1.009 | 0.963 |
| Parental leave, one in couple | 1.298*** | 1.412*** | 1.338*** |
| Student, one in couple | 0.927 | 0.945 | 0.813* |
| Time period (2004-2006 ref.) | | | |
| 2007-2009 | 1.089** | 1.144** | 0.925 |
| 2010-2013 | 1.062* | 1.127** | 0.954 |
| Constant | 0.005*** | | |
| Log pseudolikelihood | | -44757.800 | -29624.566 |

* p<0.05; ** p<0.01; *** p<0.001

1) In the equation of Model B for out-migrating to a medium-sized or small-town area versus not moving, out-migrating to a rural area or small settlement is treated as a competing risk.

2) In the equation of Model C for out-migrating to a rural area or small settlement versus not moving, out-migrating to a medium-sized or small-town area is treated as a competing risk.

SHR: subdistribution hazard ratio

Discussion

By focusing on the economic and professional characteristics of metropolitan families making a counter-urban move, this paper contributes to the ongoing broadening of counter-urban research. Register studies are well suited to describe the scope of a phenomenon like counter-urban moves among families, and to answer questions regarding what characterises them in relation to those who stay in metropolitan areas. Departing from changing spatial conditions on the housing and labour market as well as lifestyle preferences (Hansen and Aner, 2017), we set out to explore whether type of profession could influence who would take the step to move downwards in the urban hierarchy.

We found no support for the idea that having an occupation representing the knowledge economy, presumably more flexible in time and space in relation to workplace, would typically enable a counter-urban move. Although such groups have been put forward in case studies (Verdich, 2010) and popular media (Jonasson, 2012), we could not find that having this kind of profession would increase one's propensity to make a counter-urban move. The labour market for these jobs is presumably strongly attached to metropolitan areas, which is also in line with the results found by Andersson et. al (2018) indicating that, among counter-urban movers, those in these types of professions are overrepresented among long-distance commuters. If knowledge economy professions are not spatially flexible enough to enhance counter-urban migration, it seems that we have been able to identify another group that might enjoy more flexibility, namely men within arts and crafts professions. These families have an elevated propensity to resettle in a more rural area.

Location of workplace does seem to still be important for most of the workforce. Since jobs in public sector professions are more geographically dispersed, this could explain the result that this occupational category stands out among those studied here. It is public sector professionals who are significantly more likely to move, both to medium-sized or small towns and to rural areas or small settlements, and this is true for both women and men. This could be interpreted as migration motives involving other aspects than simply career (as often suggested regarding counterurbanisation); thus, having a public sector profession can enhance migration propensity rather than deter from migration, as human capital theory would suggest. Another interpretation would be that these groups are more likely to be crowded out from metropolitan areas.

The results indicate that professions within arts and crafts and the public sector characterise families with young children who leave the metropolitan area, compared to other professions. Whether or not the migration motives among families choosing a more rural destination, and in which the father's profession within arts and crafts, can be categorised as 'back-to-the-land' (Halfacree, 2008) or 'displaced' (Mitchell, 2004) is not possible to answer based on register data; nor is it possible to answer whether the motives for counter-urban moves among families having a skilled public sector profession reflect 'default' rather than 'mainstream' counterurbanisation (Halfacree, 2008). Further research is needed to

disentangle the underlying motives. Nevertheless, the families who choose to leave the metropolitan lifestyle in contemporary society and who are in employment and highly educated are overrepresented. This may indicate that there is a group that has the possibility to choose to ‘downshift’ and/or attain lifestyle changes not attainable in a metropolitan everyday life.

We also found that, compared to families who chose to stay in metropolitan areas, the counter-urban moving families are more likely to have a high level of education. This is to be expected, as the highly educated are more mobile in general. These results suggest that, although education drives urbanisation (Kulu et al., 2018; Lundholm, 2007), it is worth noting that the elevated migration propensity among the highly educated can also be directed away from metropolitan areas, and that the highly educated are overrepresented in this group of migrants as well. Some of these movers could be returnees who move back after a completed education. Our results indicate that highly educated parents in metropolitan areas are more inclined to move not only to rural areas compared to parents with a lower education level, but also to medium-sized or smaller towns. This is in line with Haley’s (2018) finding that having a child increased the likelihood of returning to rural areas in Sweden after completing higher education. Although recent Swedish studies have found that the tertiary educated are the least likely to live in rural areas (Bjerke and Mellander, 2017), the tendency for mobility in general among the highly educated makes this group frequent among counter-urban movers as well.

The finding that families within the lowest quartile of disposable income are inclined to move out from the metropolitan context to such a high extent could reflect a counter-urban movement driven by the search for lower housing costs, so-called ‘displaced counterurbanisation’ (Mitchell 2004). While Swedish housing prices have increased in general, the housing prices in the Swedish metropolitan areas have exhibited the greatest price increase since 2004 (Asal, 2019). A counter-urban move could thus be a strategy for families with young children to acquire a desirable lifestyle in another geographical context, when opportunities such as job and housing match their preferences. This could be extra important for growing families, in need of larger housing. The positive relationship between being on parental leave and counter-urban migration also suggests that the event of childbirth could cause migration (Kulu, 2008). It is known that young adults often seek a living environment outside the inner city when their first child is born, due to a need to adjust to housing needs with more affordable housing, lifestyle choices, and a desire for an appropriate environment for the child (eg Lupi and Musterd, 2006). In this paper we used a restrictive definition of metropolitan families at risk of counter-urban migration, only including couples who already had children. In addition to this population, there could also be potential migrants in the phase of planning to start a family and leaving the metropolitan areas for reasons similar to those of the population studied here.

While the flow of counter-urban moves among families with young children has been relatively small during the studied period, a slight tendency of an increase, especially to medium-sized or small towns, can be noted. It is important to keep in mind that these families often consist of the highly educated, with an overrepresentation of public sector professionals. It can therefore be confirmed that there is a potential for an inflow of competence to the receiving areas, where there often is a need for highly skilled labour (Prop.18/179, 2017). However, the potential inflow of entrepreneurs in the knowledge sector described in case studies (e.g. Herslund 2012) does not stand out in this general pattern; nor were the self-employed, who can be argued to be less tied in space and to be important for local communities, overrepresented in counter-urban moves. Being self-employed in a metropolitan area rather makes a person less likely to move, likely because entrepreneurial activity is dependent on local knowledge and networks. An endeavour for further research could be to explore how the movers' careers develop following a move, to examine whether changing profession or becoming self-employed after a move is a frequent strategy for enabling counter-urban migration. It would also be of interest, not least from a gender perspective, to further explore the extent to which counter-urban movers stay with their former employer and start commuting or working from a distance.

As we have focused on families moving beyond the suburban landscape in this study, further studies could also focus on those who resettle in the metropolitan hinterland. Whether families choose to resettle in rural areas closer to the metropolitan areas as the effect of distance is weakened thanks to ICT and commuting possibilities increase, could be questions to address in such studies. Another issue to pursue for coming research, is to draw out differences with regards to socio-economic characteristics, gender or destinations choices when it comes to return migration among counter-urban movers as well as onward migration in this group.

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