



The role of coordination failure in the movement of future knowledge workers away from the periphery



Shaul Hartal, Miki Malul*, Ofir D. Rubin

Ben-Gurion University of the Negev, Israel

ARTICLE INFO

Article history:

Received 30 September 2016
Received in revised form 24 January 2017
Accepted 4 February 2017
Available online xxxx

Keywords:

Residential location choice
Coordination failure
Social capital
Human capital
Talents
Internal migration
Student hubs

ABSTRACT

One of the main problems of the periphery is the internal migration of technological human capital in one direction from communities in the geographic hinterlands to big cities. This process is one of the most influential factors that explains the poverty trap of the periphery. In this paper, we suggest that this process results from a failure of coordination between individuals. Our findings show that students in the periphery who study technology and science are less willing than other students to remain there after graduating. However, when we offered them a model that enhanced the coordination between them involving remaining in the periphery in a homogeneous neighborhood of university graduates after completing their degree, we found a significant increase in their willingness to choose the periphery as a residential location. This finding was evident in all students, but it was stronger among students who studied science and technology. In addition, we conducted robustness checks suggesting that creating mixed neighborhoods that are less segregated and a network embracing future knowledge workers are two options for making the periphery an attractive place for such individuals to live.

© 2017 Published by Elsevier Ltd.

1. Introduction

This study deals with the internal migration of university graduates with a high level of human capital in the fields of science and technology away from the periphery where they studied and to large cities. The goal of our investigation is to determine why they make such decisions and what factors could entice them to make a different choice and remain in the periphery.

In order to understand their considerations when choosing where to relocate after graduation, we first investigated the body of knowledge about internal migrations throughout the course of one's life, based on the well-known assumption that stage in life influences one's choice of the residency. In previous generations, the most significant events of one's life often occurred almost simultaneously. Today, leaving the parental home, marriage, childbearing and career development are events that stretch out over a decade or more (Finney, 2011). These changes in the patterns of young adulthood affect migration patterns. There are societies in which the process of leaving the parental home involves moving far away from it. This practice explains the dramatic increase in internal migration among those over the age of 20 as young people leave their hometowns (Bernard, Bell, & Charles-Edwards, 2014). Another temporary peak in movement occurs when young people graduate from university (Finney & Simpson, 2008). The

rate of the intensity of the migration varies with the entry into the labor market and the establishment of permanent marital relationships. From this point on, there is a gradual decline in the volume of migration, a process that changes only with retirement and the transition to a nursing home (Bernard et al., 2014).

The decline in the intensity of internal migration in the later stages of young adulthood can be attributed to these individuals marrying and having children. Finney and Simpson (2008) found that couples under 30 have a 38.3% probability of changing their place of residence. When children are born, this probability drops to only 10.2%. Mulder and Wagner (1993) showed that there is a relationship between establishing a steady relationship and migration. They determined that married couples are less likely than singles to move far away, but they are more likely to move shorter distances. Molloy, Smith, and Wozniak (2011) attributed the decline in the willingness of couples to move to a reluctance to deal with the problem of a change in two jobs simultaneously, a phenomenon that occurs in dual career households.

Large metropolitan centers have numerous advantages that attract firms and people with a high level of human capital (Porter, 1990; Pratt, 2008; Scott, 2008; Malul, 2015). Feijten, Hooimeijer, and Mulder (2008) found that city centers attract young singles with a high level of human capital, because they can give them a greater range of options to express their abilities. According to Florida (2010), today a successful career depends on gaining a foothold in a deep labor market that offers a wide variety of employment opportunities. Choosing an economically vibrant place of residence offers protection against uncertainties such as the risk of downsizing or dismissal. In addition to the employment

* Corresponding author at: Department of Public Policy and Administration, Guilford Glazer Faculty of Business and Management, Ben-Gurion University of the Negev, Israel.
E-mail address: malul@som.bgu.ac.il (M. Malul).

aspects, Florida and Mellander (2011) noted that large cities allow people with a high level of human capital the opportunity to meet new people and connect with them. They contend that such possibilities even outweigh economic considerations. Frenkel, Bendit and Kaplan (2013) documented that knowledge workers living in the suburbs usually have a family-oriented lifestyle, whereas employees who live in the centers of metropolitan areas are usually single and are more interested in sports, cultural events and leisure time activities.

The knowledge-based urban development (KBUD) model (Yigitcanlar, O'Connor, & Westerman, 2008) and the model of an innovation ecosystem (Rabelo & Bernus, 2015) underscore the need to attract those with technological talent (Lepori, Seeber, & Bonaccorsi, 2015; Marin & Verdier, 2012; Sleuwaegen & Boiardi, 2014). Various studies have tried to determine whether talent clusters could develop in peripheral regions. They emphasize the importance of soft institutions such as social capital that might compensate for the distance from the centers of knowledge and innovation. These institutions can reduce uncertainty among those considering living in a peripheral area (Fitjar & Rodríguez-Pose, 2011). A small region has an advantage in developing social capital because relationships of trust between equals with a common language and background can create stronger relationships (Beugelsdijk & Van Schaik, 2005; Fukuyama, 1999; Whiteley, 2000; Woodhouse, 2006).

The literature generally acknowledges social capital as promoting economic growth. Whiteley (2000) showed that the interpersonal trust between citizens has an important role in explaining the efficiency of political institutions and the economic performance of societies. Indeed, it has an influence on growth similar to that of education. Beugelsdijk and Van Schaik (2005) examined 54 regions in Europe over almost five decades and found that the level of intensity of the involvement in the social network in the residential location explained the relationship between social capital and growth. Capello and Nijkamp (2010) commented that common beliefs and values enable individuals to engage in collective action more easily. They increase coordination, improve the making of decisions that are good for all, and reduce the costs for projects, sometimes making them profitable and sustainable. Putnam (1995) linked economic growth to a community¹ with strong ties. However, Florida (2003) argued that this kind of social capital leads to a reduction in innovation, because it tends to reject new members, set high entry barriers and resist innovations. In contrast, communities with weak ties are more open to newcomers, allowing the entry of new forces and ideas.

2. Literature review

This study argues that a failure of coordination lies at the heart of the inability to retain future knowledge workers in the periphery after graduating. Several decades ago, Cooper and John (1988) introduced the notion of coordination failure, which they used to explain how in a situation where there is more than one equilibrium, the players do not achieve their optimal results because they are unable to coordinate their actions with others. According to the complementarity idea, people make their decisions based on what they think will maximize their personal benefits and in response to what they think other players will do (Shapiro & Varian, 1999). Thus, large cities have benefits of

externalities due to the economies of agglomeration, namely, the benefits for people with a high level of human capital living near one another (Krugman, 1998). Therefore, the periphery needs to reach a critical mass of such individuals.

The difficulty of doing so can be described using game theory (Weimer & Vining, 1998), according to which the costs for individuals to reside far away from knowledge centers are greater than the benefits they can obtain in the periphery. Therefore, they make the rational decision to live near the centers where they can obtain a higher return on their human capital. Since all of the players make similar calculations, they will not choose to reside in the periphery. On the macro level, such decisions lead to the depletion of peripheral regions (Alfasi, 2006; Di Maria & Lazarova, 2012), condemning those who remain in the area to live in a poverty trap and leading to overcrowding in the knowledge centers (Krugman, 1998).

Geographic distance from the core often creates a vibrant student hub that has a strong network among its members (Alfasi, Avni, Yageni, et al., 2012). Universities by their very nature create connections between people and are incubators for new ideas. Cities with large technological universities hope to retain their science and engineering students after they graduate to develop the knowledge industry in the city (Darchen & Tremblay, 2010). However, these students are likely to leave the area (Busch & Weigert, 2010; Haapanen & Tervo, 2012), seeking better career opportunities (Darchen & Tremblay, 2010). After they graduate, their human capital is at a high point that they want to leverage (Borjas, 1987; Molloy et al., 2011). Many young knowledge workers who are about to start a family usually want to reside in city centers (Lawton, Murphy, & Redmond, 2013) that offer a wide variety of sports, cultural events and leisure activities (Frenkel, Bendit & Kaplan, 2013). Furthermore, given the fact that they are likely to find similarly well-educated peers in large cities, the periphery finds it difficult to compete with the attractions of metropolitan areas. Kaplan, Grünwald, and Hirte (2016) dealt with this problem by noting the importance of the proximity to friends, family and network connections as factors affecting the decision to remain in the periphery.

We evaluate the possibility of coping with this issue by creating homogeneous communities of skilled university graduates in the periphery as a means of attracting future knowledge workers to it. We regard this as a feasible solution based on findings in the literature demonstrating that in many cases the middle class tends to seek homogeneous communities (Atkinson, 2006; Blokland & Van Eijk, 2010; Burrows & Gane, 2006; Butler, 2003). In addition, common beliefs and values enable individuals to engage in collective action more easily (Horwitz & Horwitz, 2007; Wang, Chen, & Araral, 2016). They increase coordination, improve the making of decisions that are good for all, and reduce the costs of projects (Capello & Nijkamp, 2010).

While this segregation might be good for individuals, is it good for the towns in the periphery and the region as a whole? (Wissink, Schwanen, & van Kempen, 2016). Several studies have tested the success of mixed communities. Arthurson (2013) determined that the use of mixed housing policies improved a neighborhood's reputation among non-residents. Mugnano and Palvarini (2013) showed that even after the introduction of a mixed social policy in Milan, "some social groups are still excluded from the local community. Social mix is not sufficient to create social cohesion. A greater role is played by active policies aimed at making residents interact and hang together" (p. 417). Given these findings that coordination in housing might not be enough to keep university graduates in the periphery, we reviewed another scenario that actively encouraged social activities between graduate students and the local community, all of whom lived in various neighborhoods in the city (Scott, 2007).

To test our contention that models of coordination failure can be used as a policy instrument to entice knowledge workers to remain in the periphery, we investigated a case study that deals with the Negev region, the southern periphery of Israel. We first assessed whether students in the area who attended Ben-Gurion University in Beersheba,

¹ According to Heller (1989): "There are at least two generally recognized ways that the term community is used. Community as a locality refers to the territorial or geographic notion of community – the neighborhood, town, or city. The second meaning of community, the relational community, refers to qualities of human interaction and social ties that draw people together" (p. 3). The first definition refers more to the scenarios dealing with homogeneous and mixed neighborhoods, while the second definition is more compatible with the network scenario, as will be explained later.

Download English Version:

<https://daneshyari.com/en/article/5108134>

Download Persian Version:

<https://daneshyari.com/article/5108134>

[Daneshyari.com](https://daneshyari.com)