Policy Brief on Mobility of Highly-Skilled Individuals and Local Innovation and Entrepreneurship

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Financial and Institutional Reforms for Entrepreneurial Society (FIRES)

Policy brief on

Mobility of Highly-Skilled Individuals and Local Innovation and Entrepreneurship Activity

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Abstract

In an open economy immigration is a natural process. It certainly poses challenges for the host countries, but it also brings benefits, especially if migrants are highly skilled. The mobility of "talented" migrants has significant impact on the innovation capabilities and economic growth of the host country. In contrast, the loss of highly skilled workers deprives their home countries of the scientists, entrepreneurs and other professionals who drive their economies to higher levels of efficiency and productivity. Similarity in technological production structure between countries is the main driver of inventor moves - especially for inventors from the most innovative countries. Attractive country features are the quality of institutions, job opportunities and entrepreneurship activity at the destination as well as trade linkages between origin and destination country. We further show that knowledge and skills that move with the inventors have a positive impact on local innovation activity.

Introduction

Evidence based on the World Intellectual Property Organization (WIPO) data shows that highly skilled individuals appear to be more mobile than the general population, which is consistent with a positively documented relation between skill and mobility. The fear of a "brain drain" and the exodus of economically valuable agents has led the revival of the interest on what determines the mobility of such individuals and what polices could influence such flows. This paper aims to study the role of proximity, along with a number of attraction factors in shaping the international flows of highly skilled individuals. Our focus lies on patent inventors - a specific class of highly skilled workers which is more homogeneous,

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as a whole, than the tertiary educated workers. Although inventors are just a small proportion of the skilled labor, they have a significant economic contribution: they are deeply involved in the production of innovation, which in turn is the main driver of economic growth and well-being. They are also important vehicle of knowledge transmission; when skilled workers move from place to place, their knowledge and skills move as well.[1] We apply our modelling approach to thirty European countries over the period 2000-2012 with two key questions in mind: (i) What shapes the international mobility of inventors? (ii) What shapes the international mobility of the ordinary migrants? (iii) What is the impact of inventor and migration flows on local innovation and entrepreneurship activity

Methodology

To track inventor moves, we rely on patent data. Using a gravity model we analyze how geographic, technological, and cultural proximity among countries, along with other relevant economic factors, shape the flows of talented individuals. As a comparison, in the same framework of analysis, we also examine how these proximities influence the mobility of ordinary migrants. Furthermore, as the literature argues, the flow of people between firms, industries and locations has been proposed as an important mechanism for transferring knowledge and significant conduit for innovation, firm demography, and entrepreneurship. Therefore, we examine the impact of inventors on a country's innovation and entrepreneurship activity as well as the impact of ordinary migrants on the latter.

Results and conclusions

Our evidence in D3.10 shows that proximity matters for migration. Gravity emerges everywhere, in the mobility of the very talented and highly skilled workers as well as in the average worker; the former group stretches, however, farther in space than the latter. Technological proximity, i.e., the similarity in production structure, is the main driver for the mobility of a very talented individual - a finding that emerges particularly strong for inventors originating from the top innovating countries. Geographic closeness and social similarity, though significant, play a less important role, especially the latter. In contrast, social proximity matters more for the average migrant.

Figure 1: Inventor Inflows

Attractive features for an inventor in order to re-locate are the level of economic and financial development, the number of inventors at the host country and the trade linkages between origin and host country. Most of these factors as well as the tertiary education level of the host country appear to be also important for the ordinary migrant. Finally, knowledge that moves with the inventors positively contributes to local innovation production and entrepreneurial

[1] The case of inventors is comparable to other high-skilled occupations, such as scientists and academics, ICT developers, entrepreneurs, managers, and executives, among others. However, to our knowledge, there are no equivalent data for these other highly skilled occupations to perform cross-country mobility analyses.

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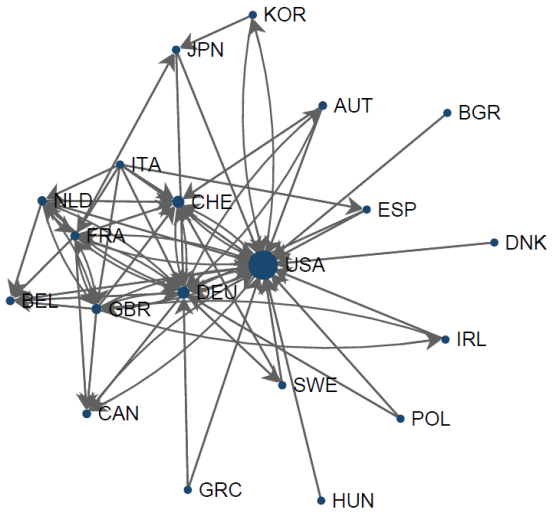
activity and so is the impact of the ordinary migrants on the latter.

Figure 2: Top 5% Inventor Inflows



Implications

We show that countries proximities, mainly technological and then geographical and cultural play important role in the moves of talented individuals.

Our results further highlight the importance of policies and factors conductive to attract patent inventors. High quality, efficient and effective regulatory environment - mainly related to competition, taxation, finance, investment, and do businesses - job opportunities and entrepreneurship activity at the destination country as well as intense trade activity are found to be important attractors for talented individuals.

Given the important economic contribution of inventors, countries should become more attentive to the quality, accountability and effectiveness of their home institutions and further to their immigration policies, as the latter could become more welcoming to skilled people.

Fostering skilled migration is a powerful policy option. Active policies should be designed in order to remove existing barriers to labor mobility: from entry restrictions to institutional/regulatory barriers. Conversely, taking a hard line stance on immigration policy, it would potentially threaten a country's ability to attract the brightest and best migrant innovators and hamper its growth potentials

Allow knowledge flows; a country will become more integrated and productive to the benefit of all – by providing motives to enhance labor mobility, sectoral and geographical. For instance, inventors visa, abolishment of nationality, residence, and affiliation restrictions could be some ways to enhance inventor (and researchers) mobility.

Further reading

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