

Brain Drain from a High Income Country? The German Experience of Selective Out- and Return- Migration of its Citizens

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Short abstract

During the last four decades the “brain drain” debate has played an important role in the study of international migration. Recently, in the context of growing pressures on national economies to “compete for global talent” this debate has lost its preoccupation with the migration-development nexus. Whereas in earlier times immigration from Southern to Northern countries has been the focus of this debate, recent years have seen an increasing interest towards studying migration flows between industrialized countries. Now the most developed countries also fear that highly skilled nationals might leave the country in significant numbers resulting in serious economic disadvantages. So far, empirical data on the phenomenon as well as theoretical reasoning is still inadequate. The paper contributes to the “brain drain” debate in highly developed countries by focusing on the German experience. By making innovative use of the European Union Labour Force Survey, the paper analyses on the numbers and key characteristics of German citizens emigrating from Germany to its European neighbouring countries as well as Germans returning to Germany from EU member states. The paper addresses in particular two so far neglected aspects: First, it provides a comprehensive analysis of the recent German experience of its “brain drain” by analysing the size, structure and dynamics of emigration and return migration flows. Second, it contributes to the theoretical debate on understanding emigration from high income countries. Based on a simple neo-classical economic model the multivariate analysis in this paper investigates the impact of human capital characteristics on emigration by using comparative data on actual migration decisions instead of information on intentions only. Overall, the paper contributes to our empirical knowledge and theoretical understanding of recent migration flows as well as provides necessary information to assist policy-making in Germany.

Extended abstract

Introduction

During the last four decades the “brain drain” debate played an important role in the study of international migration. The origins of this debate go back to the emigration of highly-skilled individuals from developing to developed countries during the second half of the 20th century (Adams 1968, Stark et al 1997). Over the past years and in the context of growing pressures on national economies to “compete for global talent” (Kuptsch/Pang 2006) this debate has lost its preoccupation with the migration-development nexus. Whereas in earlier times immigration from Southern to Northern countries has been the epicentre of this debate, the last years have seen an increasing interest towards migration flows between industrialized countries. It is now the most developed countries which also fear that their high potentials could leave the country resulting in economic competitive disadvantages. Until recently, the German political and public debate was largely untroubled by these concerns: Large scale immigration during the 1990s – composed to a large degree of ethnic Germans – resulted in positive net-migration rates of foreign immigrants and ethnic Germans alike. However, the ebbing away of the ethnic German migration flows at the beginning of this millennium and the emerging lack of high-skilled labour in certain industries (highlighted by the introduction of a German “Green Card”, for example) triggered those fears in Germany as well. Concerns about the lack of skilled labour accelerated in 2005 when the Federal Statistical Office identified for the first time since the 1960s a net outflow of about 16,700 Germans. This number tripled in the following year to 52,000 (Statistisches Bundesamt 2006).

The factors which cause migration from lower to higher developed countries have been studied widely (for an overview see Massey et al. 1993). In contrast, the understanding of mobility between highly developed countries is more limited. At least two general factors explain this lack of knowledge: First, the issue did so far neither raise political nor scientific interest. Second, reliable statistical information on emigration flows is sparse and therefore more difficult to study than immigration (cf. Bilsborrow 1997). In consequence, empirical data and information as well as theoretical reasoning are far from satisfying. Most of the available literature on emigration from highly developed countries focuses either on specific groups of migrants – e.g. students, academics (e.g. Kelo et al. 2006) – or is based on survey data on emigration intentions only (cf. Dalen/Henkens 2007, Hadler 2006, Übelmesser 2005). Although the results of these studies are limited, they support the general assumption that it is mainly economically active and highly-skilled individuals who are internationally mobile. As a consequence, even if the level of emigration from industrialized countries is low, the economic consequences of highly qualified people leaving a country could be substantial.

Building on the recent political interest on the issue of emigration and the limited knowledge we have, the paper contributes to the “brain drain” debate in industrialized countries by focusing on the German experience. By making innovative use of the European Union Labour Force Survey (EULFS), it focuses on two aspects: First, the paper describes the recent German experience of its “brain drain” by analysing the size, structure and dynamics of emigration and return migration flows. Here, the focus is particularly on the educational selectivity of German citizens emigrating from Germany to its European neighbouring countries and how it developed during the last fifteen years. Second, the paper contributes to the theoretical debate on understanding emigration from high income countries. Starting with a simple neo-classical economic model we focus on the impact of human capital characteristics on individual migration decisions.

The paper addresses a number of shortcomings in the available literature. First, the actual knowledge about recent emigration from developed countries is quite limited. As argued above, most studies focus on migration intentions instead of actual migration flows.

The paper follows similar attempts of assessing “brain drain” from Australia (Hugo 2006), Italy (Becker et al. 2004) or Scandinavia (Pedersen et al. 2002). The use of the comparative data of the EULFS, however, does not only allow for the analysis of the actual size of the brain drain from Germany but also to account for key factors explaining emigration decisions. Second, the paper provides important information on the German experience. The few available studies on the socio-economic characteristics of German emigrants are based on the information of the US visa statistics and US census data only (e.g. Saint-Paul 2004, Diehl/Dixon 2005). Although the US is without doubt one of the most important countries of destination for German emigrants, the actual numbers of Germans moving into neighbouring European countries are by far larger which is why this study focuses on intra-European migratory movements (see Sauer/Ette 2007). A third aspect this paper tries to address concerns the fact that most studies focus on out-migration only. However, the debate on “brain drain” in the development context made it clear that a more comprehensive understanding of the recent emigration experience of such countries has to take return migration of their citizens into account as well. Those who return might have accumulated human capital in the country of destination, so that their return might have positive effects on the society and economy of their home country. As a consequence, the emigration flows – originally portrayed as a “brain drain” – potentially develop into a “brain gain” for the home country.

Theoretical focus

In its descriptive part, the paper analyses the educational selectivity of out- and return-migration from and to Germany and its development during the last fifteen years, whereas in its analytical part the paper focuses on key factors to account for individual migration decisions. To study these issues, the paper builds on the literature on the economics of migration and on the human capital theory in particular. The self-selection of migrants and the selectivity of migration flows have been most intensively studied by economists whereas sociological theories on migration are far less explicit about the selectivity effects of their main explanatory factors. To account for migration decisions, the basic economic model starts from the assumption that individual rational actors decide to migrate because a cost-benefit calculation leads them to expect a positive net return. Human capital characteristics are therefore the decisive factors accounting for individual migration decisions and rank high in the analyses of this paper (Hicks 1932, Sjaastad 1962).

Economic theorizing also helps to account for the selectivity effects of emigration flows. Borjas (1987: 534) demonstrates with a simple model that, given sufficiently high portability of skills between source and destination countries, and time-equivalent migration costs, labour migrants are positively selected on unobservable characteristics, such as abilities and productivities, if the source country has less dispersion in its earning distribution, and positively selected on observable skills, such as education, if the return from educational attainment is relatively higher than in the destination country. This is so because it would be relatively less rewarding for people with higher skills to migrate than for those with lower skills. Similarly, Borjas and Bratsberg (1996:167) show for the case of return migration that the direction of selectivity of returnees depends on the initial migration flow. This implies that in the case where the migration flow is negatively selected on skills, return migrants are the “best of the worst”, and if it is positively selected on skills, return migrants are the “worst of the best”.

The empirical analysis builds on these basic theoretical propositions to explain migration decisions as well as the educational selectivity of emigration and return migration

flows to and from Germany. The available empirical evidence which utilizes this theoretical reasoning provides rather inconsistent findings so far: Regarding emigration, some studies contend that migrants represent a positively selected group from the home country because they are more ambitious and willing to work or have higher educational levels than those who stayed behind (Portes/Rumbaut 1996, Feliciano 2005). However, others have argued that only some migrant groups are favourably selected or that positive selectivity declines over time (Massey 1987, Massey/Espinosa 1999). Similarly, on return migration results are also inconsistent with Jasso and Rosenzweig (1988) and Massey and Redstone Akresh (2006) showing that skilled immigrants are the most likely to return to their home countries, whereas Bauer and Gang (1998) found that they are negatively selected with regard to income and human capital.

Empirical Approach

For the empirical analysis of emigration and return migration of German citizens, the paper uses the European Union Labour Force Survey (EULFS) which is carried out on an annual basis since 1983 in today about thirty European countries. While the EULFS was originally not intended to measure spatial mobility, since 1992 the survey questionnaire includes questions that allow an estimation of the stock of foreign immigrants, years of residence in the member state and the international flows of immigrants. Although, the data on spatial mobility has to be used with care (cf. Martí/Ródenas 2007), it constitutes an important data source for measuring international migration in Europe because it provides comparable information for a large number of countries and over a long period of time. In particular, it allows the analysis of the socio-economic structure of emigration and return-migration flows from and to European countries – a valuable information because most European countries either do not register emigration at all or those which register it do not collect socio-economic information (for a methodological evaluation of the strengths and weaknesses of mobility data in the EULFS based on the German sub-sample see Ette et al 2007).

The empirical analysis concentrates in a first step on the description of the educational selectivity of German emigrants and return migrants, focusing on intra-European migration between 1992 and 2005. In a second step, we investigate individual migration decisions of German emigrants and return migrants based on a logistical regression model analysing the influence of basic demographic and socio-economic factors (i.e. human capital characteristics) on the migration prevalence between high income countries. To address the “brain drain – brain gain” question, the paper estimates the educational selectivity of German citizens’ out-migration and return-migration separately. For out-migration the paper focuses on immigration information collected in the EULFS by all EU-14 countries on immigrating Germans. For the analysis of migration flows, the paper makes use of those information where respondents indicate that they have left Germany during the last twelve months, moved into the respective member state and indicated that they have stayed in the respective country for not longer than one year. To assess the selectivity of emigration flows from Germany, the paper compares this group with the educational background of German citizens remaining in Germany. Similarly, the study investigates the selectivity of German return migrants by comparing the educational level of German immigrants moving to Germany from one of the EU-14 member states during the last 12 months. Here, we compare the return migrants with those German citizens who stay in one of the EU-14 countries.

Conclusion

Based on this comprehensive research design, the paper addresses at least two pressing issues in the current debate: First, the descriptive analysis allows a detailed assessment of the educational selectivity of emigration from a high income country. Using the German example, the paper demonstrates how selectivity developed during the last fifteen years and the additional analysis of return migration provides information to address the question whether we should be speaking about a “brain drain” (higher level of education of emigrants compared to return migrants) or a “brain gain” (higher level of education by return migrants compared to emigrants). Second, the multivariate analysis in this paper expands on the knowledge base about emigration from a high income country by using comparative data on actual migration decisions instead of information on intentions only. Overall, the paper contributes to our empirical knowledge and theoretical understanding of recent migration flows as well as provides necessary information to assist policy-making in Germany.

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