# "Motives for the migration of scientific, research and academic workers"

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	R https://www.webofscience.com/wos/author/rid/D-8948-2016	
ARTICLE INFO	Eva Fichtnerová and Jitka Vacková (2021). Motives for the migration of scientific, research and academic workers. <i>Problems and Perspectives in Management</i> , 19(1), 209-220. doi:10.21511/ppm.19(1).2021.18	
DOI	http://dx.doi.org/10.21511/ppm.19(1).2021.18	
RELEASED ON	Tuesday, 02 March 2021	
RECEIVED ON	Wednesday, 28 October 2020	
ACCEPTED ON	Thursday, 18 February 2021	
LICENSE	This work is licensed under a Creative Commons Attribution 4.0 International License	
JOURNAL	"Problems and Perspectives in Management"	
ISSN PRINT	1727-7051	
ISSN ONLINE	1810-5467	
PUBLISHER	LLC "Consulting Publishing Company "Business Perspectives"	
FOUNDER	LLC "Consulting Publishing Company "Business Perspectives"	

P	B	
NUMBER OF REFERENCES	NUMBER OF FIGURES	NUMBER OF TABLES
28	0	0

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#### **BUSINESS PERSPECTIVES**



LLC "CPC "Business Perspectives" Hryhorii Skovoroda lane, 10, Sumy, 40022, Ukraine

www.businessperspectives.org

Received on: 28th of October, 2020 Accepted on: 18th of February, 2021 Published on: 1st of March, 2021

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Conflict of interest statement: Author(s) reported no conflict of interest Eva Fichtnerová (Czech Republic), Jitka Vacková (Czech Republic)

# MOTIVES FOR THE MIGRATION OF SCIENTIFIC, RESEARCH AND ACADEMIC WORKERS

#### **Abstract**

The higher education system needs personalities who guarantee high quality of academic and scientific performance. This paper deals with the motives of their migration to/from HEIs, knowledge of which is important for their HR management and increasing global competitiveness.

The theory is based on the idea of internationalization (Knight, 2012) and push-pull factors (Ravenstein, 1889), leading to the recruitment of highly qualified labor from abroad. The analysis focused on the "circulation of brains" in modern Europe. The final part contains a graph of the research methodology.

Three main areas of the motivation process affecting migration have been identified. At the macro-level, this is political support, which enables the arrival of experts and creates conditions for own professionals to gain experience abroad, but return. This applies to working conditions, adaptation, and integration. Economic conditions at the mezzo-level are based on the motives of finding a better job opportunity and one's living conditions. The transfer of knowledge increases the country's economic potential. At the micro-level, there is an impact of an individual's character traits and surrounding social networks. It depends on the influence of a family, school, friends, the desire to apply language and other skills, and experience abroad.

The knowledge of the motives for migration should be a stimulus for taking appropriate measures at higher education institutions leading to the creation of a multicultural environment and the readiness of HEIs to use «brain circulation» to increase their excellence in academic and scientific performance.

**Keywords** migration, higher education, brain circulation,

internationalization, highly-skilled, Europe

JEL Classification F22, I23, J24, J49

#### INTRODUCTION

Motivation is a factor that leads a person to a certain action. Human behavior is also influenced by biological, cultural, and situational aspects. Therefore, motivation is a multidimensional process influenced by internal and external causes. The basic motives arise from the need to satisfy a shortage (Basic Motivation Concepts, 2021). Migration motives were examined to meet the need of scientific, research, and academic workers (hereinafter referred to as "SRAW") to migrate to countries where they find better employment and living conditions. These incentives are used by states and HEIs to select highly qualified workers (hereinafter referred to as "HSW), as they increase their international competitiveness in research and education.

The fundamentals of the migration drive consist of a combination of push and pull factors – adverse conditions in a specific country leading to migration to a country with better living conditions and conditions that offer a vision of a better future. The origin of this theory was put forth by E. G. Ravenstein in the 19th century (Ravenstein, 1889).

The capabilities of the highest-developed countries include the ability to attract and retain qualified migrants in an asymmetric global economy (Shachar, 2006).

The theoretical framework of human migration and mobility studies have undergone great changes in the last two decades. Increasing transnational and cross-border analyses, the formulation of one's own experience with migration, increasing interest in binding migrants to a specific place, and the concept of "home" have merged to enrich our understanding of human mobility (Marcu, 2014). The motivation to migrate is, in part, a component of European internationalization – a high-quality SRAW may have a contractual labor law relationship with different European or international institutions. That is why this is often referred to as a transnational issue (Sperduti, 2017). The more international students and workers the institution has, the better opportunities it has for intercultural dialog and understanding of the world (Knight, 2012).

This paper consists of identifying the basic areas of motivation for the migration of SRAW who work in European HEIs.

# 1. LITERATURE REVIEW

Who are the so-called HSW – highly skilled, talented, and experienced workers? They are primarily scientists, researchers, technology specialists, professionals, and academics. They are not bound by national borders and show high mobility and migration (Ackers, 2008). Their transnational mobility and migration is a physical and social transfer from one country/institution to another. Many academic activities are transnational, while the individuals involved remain in their home country, at least to some extent. Citizenship and rights of abode are granted by countries to individuals and thus help legitimize life and work in a specific country. That is why international mobility is related to the issue of integration and legal position within the country in which migrants live and work, whether temporarily or permanently (Cantwell, 2011).

The strategies of the European Commission, exemplified by the Europe 2020 document for the period of 2010–2020 (Europe Strategy 2020, 2019), as well as political initiatives, attempt to improve the conditions for SRAW migration, as well as promoting further education and increase employability in Europe. Other strategic documents are, for example, "Youth on the Move" (2014) or "New Skills Agenda for Europe" (2016). In January 2000, the Commission of the European Communities established the "ERA – European Research Area" (2019) as the central plank for strengthening and structuralizing European research pol-

itics. The result was the European Charter for Research Workers and the Code of Conduct for the Employment of Research Workers, which was aimed at markedly increasing the attractiveness of Europe for research workers. It supports the employment of academics from the Member States by improving conditions indispensable for longer-term employment, more attractive career options, and particularly for retention of highly qualified workers within the European territories (European Commission, 2006). There are significant differences between recruitment and career systems in Europe. Thanks to the creation of the ERA, there was a visible social structure of those leaving to find jobs. The migration of HSW with university educations is not only promoted by the support of the European Union but also by the United Kingdom, whose political goal consists of ensuring both high-quality and diverse educations (Behle, 2014).

Migration depends on the political motives – on the level of economic, scientific, and technological support of individual EU Member States, as well as on long-term political strategies of the governments of the individual countries. For example, Italy continues being an exporter and not an importer of scientists, from the perspective of working and research conditions. Italy seeks to encourage foreign scientists to enter the Italian academic system and to convince Italian scientists abroad to return to Italy. Another solution consists of designating a group of Italian scientists abroad to act as advisers to the government and research institu-

tions. Many countries must draw a lesson from the scientific systems of the most respected countries and politically support the improvement of conditions in their home country (Sbalchiero, 2017).

Motives for migration are determined by, among other things, different approaches to university education utilized in various countries in Europe. In Austria, Italy, Poland, and the United Kingdom, a mechanism of social selection is applied before the integration into the university education process. On the other hand, Belgium and Norway have more inclusive systems. For example, the government of Norway provides financial support, thus reducing the differences in social origin among the student population, and supports participation in international studies for all students—it influences migration abroad for young SRAW (Van Mol, 2014).

Education policy itself is a key motive impacting migration. It can potentially be influenced by the laws of compulsory education, which determine the minimum level of an individual's education. Data showed that each additional year of compulsory education reduces the number of individuals who migrate in a given year by 9%. Unfortunately, European lawmakers completely ignore this factor (Aparicio Fenoll, 2017).

Migration of HSW supports the cooperation and transfer of knowledge and strengthens the competitiveness of the states and HEIs. It is associated with economic motives.

Wealthier and stable countries offer rules and conditions for migrating HSW. They get an opportunity of permanent residence (it is an exchange of talent for citizenship) on the principles of supply and demand. Therefore, academic migration constitutes a transaction between the buyer and the seller of work within a specific political regime. Migrants are attracted by the wealth of developed countries like the USA and Great Britain, since "...wealth and stable politics can have an impact on an individual's welfare, freedom, and the level of opportunity in a world characterized by inequalities within state and regional borders" (Shachar, 2006, p. 163).

The concepts of "brain drain, brain acquisition/gain, and brain circulation" tend to be limit-

ed to the nation-states and the living conditions therein, associated with the receiving and sending countries. Transnational mobility combined with an international academic job must provide the individual with good working conditions, relative to the opportunities and limitations of the labor market, which influence both individuals and institutions within a particular academic field (Cantwell, 2011). The motivation for migration is a continuously changing and ongoing decision-making process. It is conditioned by forces that far surpass personal choice – very often there are bigger differences in the standard of living between sending and receiving countries. There is a demand to recruit foreign students and workers because of the economic benefits to their institutions (Findlay, 2011).

Motivations of graduate students are strongly influenced by the macroeconomic situation in their home country relative to life perspectives in the labor market of the destination country. Migration may represent a strategy for dealing with the uncertainties faced by many young people. However, not everybody has access to international opportunities, and the expense of transferring abroad may be a significant obstacle, which can lead to a decision not to migrate. Therefore, financial resources also play an important role in migration decision making (Van Mol, 2014). Thus, the migration of SRAW (or "brain-circulation") constitutes a way of avoiding potential unemployment and of further increasing the value of university degrees, while gaining experience for future employment in the international labour market (Wiers-Jensen, 2008).

Students usually live for more than three years at university, and during that time, they establish many interpersonal relationships that may affect their future employment. It can, therefore, be assumed that a significant number of students, after graduating from the university, choose to work in the same region as their university, in the area of these personal relationships. These students undoubtedly become the human capital and the main force for the development of the economy in these regions. That is why HEIs have a local economic influence on R&D, transfer of knowledge and technology, and development of human capital. Using the data based on students with tertiary

educations, on GDP per citizen, and total expenses for R&D, there is a strong statistically significant relationship between Knowledge-Intensive Employment (KIE) and R&D. There is a delay between the creation of human capital and its influence on economic development. Human capital needs some time before it starts to contribute to economic development; the students must first graduate and only then, as graduates, they start making contributions to society through their job, which positively supports the economic environment of the region (Lilles, 2017).

In the United Kingdom, the number of HSW who find work in other European countries has been constantly on the rise. The migration of university graduates can be considered an alarming development and a "brain drain" on the British economy, since it is probably one of the ways graduates deal with problems associated with finding and securing qualified work. The "brain drain" constitutes a reaction of graduates to the low number of available jobs coincident with their qualifications. On the other hand, "brain gain" means that university graduates come to a country with an education that was funded by their home country, which can be considered an exchange of skills and knowledge that benefits other European countries - "brain circulation". The transfer of HSW from one country to another is considered one of the ways that SRAW can increase the value of their completed studies and increase the chances of finding a good job; however, migration to a foreign country need not necessarily be the final step. It can be expected that many university migrants will, at some point, return to their home country. The time spent abroad will help them acquire work experience and integrate them into international networks. Migration to another country is a good strategy for maintaining a level of employability and competitiveness in the labor market as a whole, and not just in the European Union labor market (Behle, 2014). On the other hand, the elite British universities dictate the distribution of jobs in which the British academic markets direct foreign workers primarily to elite academic institutions. Nevertheless, the SRAW are primarily employed in secondary positions, which are often difficult to staff with British academics. That explains the excessive concentration of academics from regions outside the United Kingdom in such positions. It

suggests that it is not a coincidence but a planned job distribution in which foreign academics are "used" as replacement workers (Khattab, 2016). The United Kingdom attracts and uses "cheaper" workers from abroad, while British citizens who cannot find adequate opportunities to utilize their skills in their national labor market may migrate in search of better opportunities. Graduates from elite schools and/or those coming from higher so-cioeconomic circles, often find good working opportunities both at home and abroad.

Many Polish graduates left for Great Britain after 2004 to better utilize their skills in the labor market - they lacked work opportunities in Poland, so the United Kingdom was where they went to find their first job after graduation. Thus, migration influenced their career, transitioning from university to work. Between 2009 and 2010, about half a million people, roughly aged 25 years, left Poland. Despite the evident difficulties, they faced obstacles with a vision of a career in Great Britain. Decreased human capital and increased migration of Poles to the United Kingdom can be considered a "brain drain" in Poland - an excessive decrease in "brains" and a failure to utilize highly skilled Polish graduates, while from the perspective of the UK, it constitutes "brain overflow," an oversupply of HSW (Kaczmarczyk, 2006, 2009, 2010 in Szewczyk, 2014).

Five primary motives for HSW to leave Italy were described: (1) high level of bureaucracy, (2) rigid hierarchy, (3) scientific disunity, (4) missing resources, and (5) equipment (Constant and D'Agosto, 2008). Italian scientists are seeking to utilize their scientific expertise abroad. Italy must improve the conditions of work and research and the academic system at the national level (Sbalchiero, 2017).

The wealthier countries (like Norway or Great Britain) are often desired destinations of HSW not only from Europe and America but also from less developed countries. Migrants from developing countries, and also countries such as Turkey, move there because of the highly regarded tertiary education systems – esp. to Belgium, the Netherlands, Switzerland, France, Germany, and Spain, with a vision of a better life for themselves and their families. Norway invests heavily to provide its students both at home and abroad with an

abundance of international experiences and opportunities to utilize their skills.

In some cases, the migration motive is a necessity – searching for a better job to get higher remuneration and further life opportunities, although primarily for those with less experience from countries with relatively small and poorly funded academic systems. As such, it is also possible to see the internationalization of European university education as a form of indirect discrimination (Ackers, 2008). But sometimes, working in a foreign European country is not based on an organized conceptual approach, but is usually based on a random impulse (Musselin, 2004).

European academic labor market strongly attracts the best scientists from economically weaker countries. Therefore, the world of R&D can be viewed as a social system in which research opportunities and symbolic awards for research work are concentrated in several specific places and institutions (Sbalchiero, 2017). Merton (1968) called this situation the "Matthew's effect" - newly available resources are distributed among social actors proportionally to what they already have; thus, those who have much will get even more (Merton, 1968). The transition of graduates from the university to the labor market depends on many individual motives. The perception of one's future success or career depends on personal capabilities and opportunities for work. Individuals' intellectual capital, as well as their ability to utilize all their capabilities and skills abroad, are critical factors. Because of the potential unpredictability of life abroad, some of them have better predispositions for dealing with the dynamic and complex personal, educational, and employment relationships encountered abroad (Szewczyk, 2014). But many European scientists must migrate and work abroad for some time to be able to continue their careers. It is not their choice but their career, which requires migration (Ackers, 2004).

The essential motives for migration abroad consist of the influence of social networks, which are mainly composed of family and friends. Because of the financial costs related to moving and living abroad, persons from higher social classes can make these decisions with fewer restrictions.

Therefore, the migrants come from families open to international experience, through the personal experience of members of their extended family in a foreign country or to positive attitudes regarding stays abroad. International experiences within the family, support from family members, and the role of colleagues and friends are important factors in the motivation and decision-making process. This context is closely related to mobility decisions in all European countries under review – Austria, Italy, Poland, United Kingdom, Belgium, and Norway (Van Mol, 2014).

There is a significant influence of higher socioeconomic environments. Highly qualified graduates, so-called "Eurostars" (an elite or positively selected population in the European education space) who come from high social classes and have studied at reputable universities in the United Kingdom, are supposed to migrate to increase their prestige (Recchi, 2009). Migrating graduates had often studied languages or interdisciplinary subjects, many of them containing a language element. It was evident that those who had stayed abroad during their studies were more likely to migrate in search of work, to another European country. Language studies, as well as foreign travel during study programs, constituted an important precondition for migration to another country after graduation (Behle, 2104).

Positive international experiences support migration, while negative experiences may act as a barrier. One or more previous stays abroad can act as an impulse for future stays; as such, the role of international mobility during university studies should be viewed relative to these motives:

- a) international mobility influences personal motivation and decisions regarding migration, since it facilitates personal development and improves career opportunities;
- b) motivation may also come from interests in foreign countries, cultures, and new experiences;
- it can lead to academic motivations (e.g., better academic offers); on the other hand, it can also act as a barrier (e.g., in case of extended studies);

 d) good language and communication skills have a positive effect, while poor language skills may act as a strong negative factor (Cantwell, 2011).

Thus, the international work experience is an important factor; however, a lack of international work experience was also found to make some individuals decide against longer stays abroad, while previous independent international experience, both individual or with friends, was often associated with the decision to work abroad (Van Mol, 2014). Most postdocs perceive their international experience as a personal strategy aimed at improving their chances for further utilization of their skills in their own country. They go to work abroad to enhance their curricula, while still hoping to find a high-quality permanent job in their home country. Therefore, as part of networking within established academic traditions, their migration is determined by circumstances and preconditions for a career in their own country (Musselin, 2004).

Migrants can also encounter social barriers in other socio-cultural surroundings. For example, highly educated migrants from Turkey were placed in their jobs abroad in the lower part of the ethnic hierarchy, where they perceived themselves as different from the majority society in daily life. Based on their country of origin or religion, they make their own space by creating Turkish or Muslim communities, which is also considered an undesirable behavior. They try to define the boundaries of their identity and national diversity in the host country, which may adversely affect their work performance (Yanasmayan, 2016).

The literature review has shown three main areas of the multidimensional motivation process – political motives, economic and individual/social ones. All these motives can mingle at different levels.

# 2. GENERALIZATION OF THE MAIN STATEMENTS

The results of the literature review show the international academic labor market in the context of supply and demand, considering how the condi-

tions for migration and integration of HSW are set by European countries (Eurydice, 2017). That way the political, economic, and social structures help to maintain and extend competitive positions of HEIs.

Below is a description of three primary motivation areas leading to SRAW/HSW migration and mobility:

.. Political motivation or macro-context depends on the government politics and university management, namely, the political strategy of sovereign European countries includes the search for qualified migrants to increase competition from a worldwide perspective (Cantwell, 2011). The recruitment of HSW is considered a transnational activity in which the level of excellence and competitiveness is directly related to the extent of internationalization of university educations (Ackers, 2008).

State policy influences the following factors:

- a) recruitment, retention, and integration of HSW;
- b) creation of conditions to utilize SRAW skills;
- a) internationalization of education, including a strategy for tolerance and acceptance of the diversity associated with international workers.

The state support is closely related to the economic motives – financial sources for enhancing internationalization activities and the mutual migration/mobilities are substantial for the competitiveness in the modern labor market.

2. Economic (or mezzo-) factors of motivation are connected with reactions to job offers and utilization of own skills in the labor market, improved life conditions: there are differences between individual European countries; for example, Italian scientists found better working conditions and opportunities for scientific research abroad. The issue of "brain circulation" confirms the need for further reflection of development and migration, aimed at a better understanding of complex economic and social phenomena and at improving the development.

opment of educational systems at the national level (Sbalchiero, 2017).

There are also economic issues of supply and demand, individual differences in living standards, and career opportunities, which can motivate HSW circulation as follows:

- a) "brain gain" brings economic savings, since SRAW acquire their educations in other countries,
- b) "brain drain" has the opposite effect and may be caused by the few opportunities for an educated worker to utilize his/her skills in the national labor market,
- c) "brain circulation" may be beneficial for all actors involved; it is often possible in economically stable countries.

Human capital moves to find better living and working/research conditions. Individuals with adequate opportunities to utilize their skills near the university they graduated are less likely to migrate. Migration abroad is often financially demanding, which can act as a negative factor when deciding about working abroad.

3. Social (or micro-) aspects of motivation – the influence of the individual personality traits and the closest social networks; structural factors from the individuals' surrounding environment and personal decisions to migrate cannot be understood without further context, including the influence of a family, friends, school, previous international travel experience, and the influence of other social networks (Van Mol, 2014).

Deciding to migrate is a complex and difficult process. Social and individual capabilities/possibilities are often influenced/motivated by the following social networks and opportunities:

- family, friends, colleagues, and their positive experiences with stays abroad;
- the social and economic environment of an individual. Financially secured individuals often study at elite universities and have good

- language skills they more likely migrate abroad;
- staying abroad is often based on a variety of different personal reasons. It is the character, an interest in culture, religion, or the language of the host country, or the presence of family members or friends in the host country;
- d) career conditions scientific and research or academic perspective, the individual often views a stay in a foreign country as a precondition for career development and more professional opportunities;
- e) individuals have their own experiences from previous stays abroad and may be attracted by new job opportunities or a better standard of living in another country.

# 3. DISCUSSION

There is controversy about the need and extent of the SRAW migration and mobility between HEIs. According to Sperduti (2017), HEIs should reflect its historical territory, society, and civilization of its origin (Sperduti, 2017). It is possible to dispute whether the post-communist and/or poorer states in Central Europe (Poland, Czech Republic, Italy, etc.) may fear the departure of their HSW to other European countries that can offer them better career opportunities, better working conditions, and higher standards of living. Universities in Central and Eastern European countries (with non-English programs) could be considered unattractive for teachers and researchers aiming to publish high-quality research. Thus, they attract "the third-country nationals", especially from India, China, and other countries in the East. It is often not easy for them to manage strict administrative measures to enter a European country unlike SRAW coming from the EU Member States. Integration of HSW from outside the EU may present significant obstacles as well as discrimination, however, they are often willing to persevere.

Sometimes the migration motive is very individual and simple – the search for a better salary, professional development, and further life opportunities. This often applies to SRAW with short experience, coming from poorer countries and HEIs – somebody can see this type of internationalization as a type of indirect discrimination (Ackers, 2008).

The "brain circulation" is supposed to be beneficial to all HEIs. There may be a concern of the "Mathew's effect" - HEIs that have much will get even more (Merton, 1968), and one can also hear criticism of the spread of Western pedagogy or westernization of higher education with English as a Medium of Instruction (EMI), as well as forcing academics to be part of international networks to obtain a doctorate or associate professorship or professorship in western European countries and to publish only in English journals. Eastern European universities must respect this universal approach and "lingua franca", but must also consider their missions, visions, values, and opportunities in education, science, and research (Sperduti, 2017).

The greatest experience and the largest share of SRAW can be found at academically stable HEIs in countries such as the USA, Great Britain, Switzerland, Belgium, and the Netherlands. These HEIs support internationalization, and this process helps them in overall development and worldwide networking. Therefore, it is important to appreciate the effort of the European Commission to stabilize the European education and research area to support "brain circulation". Foreign HSW bring diversity, knowledge transfer and enrichment to

the country where they work and strengthen the competitiveness of universities and research institutions in the world market. In today's globalized age, they represent an important human capital. That is why the knowledge of SRAW motives for migration and mobility is significant for internationalization efforts.

It is not easy to get specific data on SRAW, which are usually not registered in national statistics, and the data must be acquired by directly approaching individual institutions (Sbalchiero, 2017). The same is true for the Czech Statistical Office with no data on the numbers of SRAW at the HEIs in the Czech Republic. There is a need for more research in this area to ensure the migrants' well-being while working and living in another country.

The lack of information about SRAW causes a deficiency of welcoming and integration services at HEIs and they can feel discomfort during their adaptation.

HEIs in Central and Eastern European countries must adopt strategic plans that ensure support of their institutional environment for internationalization in the same way as they keep national political and economic interests. It is essential, within the framework of HR development plans, to set the working conditions and opportunities that will guarantee all SRAW further employment, services, and professional growth.

## CONCLUSION

In summary, the synoptic literature analysis helped to identify the multidimensional motivation process in the three above-mentioned areas leading SRAW to migrate. In practice, the political strategies of individual countries should incorporate conditions for better inclusion and full integration of international workers, which will ensure their competitiveness, prestige, and exclusiveness in the future.

There are three basic motivation areas that need to be considered in the strategic HR planning of SRAW in each research or HEI. They differ mostly at the political level because the legal conditions are determined by the current political representation of each state. The economic aspects depend on the approach and conditions of individual institutions and their ability to recruit and retain this type of workforce. It can be deduced that the major stakeholder is the host institution – the employer that provides quality and decent working conditions, adequate remuneration, and professional growth. Individual Central and Eastern European countries, their ruling elites, and academic communities should give more thought to the utilization of highly skilled international human capital to create conditions to ensure that SRAW will have opportunities to utilize their skills both in their national labor markets and in Europe. Hosting prominent professors and scientists from the whole world is a noteworthy benefit of

the educational process. A further goal should be to encourage workers, after acquiring work experience and skills abroad, to return to their home countries ("brain circulation").

Relevant services of the employer supporting a rapid adaptation to a new work environment and integration into life and culture are also essential for the newcomers from abroad. One of the most important aspects is the continuous monitoring of the current situation and the strategic planning of specific activities in the political, economic, and social spheres, which will make SRAW recruitment from abroad easier and more attractive. Solutions should be implemented to improve recruitment and admission procedures of foreign staff, increase the language skills of academic and non-academic staff, extend the number and quality of study subjects and programs offered in foreign languages, and strengthen participation in international networks of top educational and research institutions. Social motivations are various but usually depend on social networks, skills, and the nature of each individual.

The purpose of this paper is to be an impulse for further research in this field, which will support progress, improve educational systems, and lead to innovations in the European SRAW labor market. In addition, the results show the need for good quality and reasonable balance of working conditions and professional opportunities for all HSW, and they intend to contribute to the readiness of relevant HEIs to more intensively participate in similar studies and projects in their territories.

# **AUTHOR CONTRIBUTIONS**

Conceptualization: Eva Fichtnerová. Data curation: Eva Fichtnerová. Formal analysis: Eva Fichtnerová. Investigation: Eva Fichtnerová. Methodology: Eva Fichtnerová. Supervision: Jitka Vacková. Validation: Jitka Vacková.

Writing – original draft: Eva Fichtnerová. Writing – review & editing: Jitka Vacková.

## **ACKNOWLEDGMENT**

This research did not receive a specific grant from any funding agency in the public, commercial, or not-for-profit sectors. The researchers have no conflicts of interest to disclose.

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# **APPENDIX A**

#### **Abbreviations**

HEIs – Higher Education Institutions HSW – Highly Skilled Workers SRAW – Scientific, Research and Academic Workers

# SYSTEMATIC REVIEW STRATEGY GRAPH

# Steps of systematic research:

# I. Keywords (TX - all the text):

Reasons for highly skilled migration AND Scholar or academician or researcher or lecturer AND EU or European Union or Europe AND University or College or Higher Education Results = 28,831

Conditions - extension: Search also in full texts, use of equivalent subjects, all types of documents.

#### II. Exclusion and restriction criteria - Refinement of results:

#### Limited to:

- 3. Years of publication: 2011–2020; 18,241 results.
- 4. Topics: migration, higher education, employment, reviews, human capital, skilled labor, social networks, mobility, brain drain, Europe, integration: 2,932 results.
- 5. Languages: English, Russian: 2,930 results.
- 6. Clarification of the topic: education, universities & colleges, decision making: 203 results.
- 7. Geography: Europe, Great Britain: 11 results (all sources were academic periodicals in English).

#### VIII. Study of texts:

#### Elimination of irrelevant resources:

Article No. 9: "Catching up? The educational **mobility** of migrants' and natives' children in **Europe** (on the rise of educational mobility of children from under-educated migrants)".

Article No. 11: "Challenging Global Geographies of Power: Sending Children back to Nigeria from the United Kingdom for Education (that young Nigerians are sent back from the UK to Nigeria for the secondary education in subjects based on their cultural dispositions)."

#### IV. Analysis of 9 articles, 1 - 8 & 10:

- 1. Behle, Heike: "European Mobility of United Kingdom Educated Graduates. Who Stays, Who Goes?" (Database Academic Search Complete).
- 2. Sbalchiero, Stefano and Tuzzi, Arjuna: "Italian Scientists Abroad in Europe's Scientific Research Scenario: High skill migration as a resource for development in Italy." (Scopus Database).

- 3. Lilles, Allo and Rõigas, Kärt: "How higher education institutions contribute to the growth in regions of Europe?" (Database Academic Search Complete).
- 4. Khattab, Nabil: "Globalization of researcher mobility within the UK Higher Education: explaining the presence of overseas academics in the UK academia." (Scopus Database).
- 5. Cantwell, Brendan: "Transnational Mobility and International Academic Employment: Gatekeeping in an Academic Competition Arena." (Database Academic Search Complete).
- 6. Szewczyk, Aga: "Continuation or Switching? Career Patterns of Polish Graduate Migrants in England." (Database Academic Search Complete).
- 7. Yanasmayan, Zeynep: "Does education 'trump' nationality? Boundary-drawing practices among highly educated migrants from Turkey." (Database Complementary Index).
- 8. Aparicio Fenoll, Ainhoa and Kuehn, Zoe: "Compulsory Schooling Laws and Migration Across European Countries." (Database Complementary Index).
- 9. Van Mol, Christof and Timmerman, Christiane: "Should I Stay, or Should I Go? An Analysis of the Determinants of Intra-European Student Mobility." (Database Academic Search Complete).

#### V. Study of other resources:

12 other relevant articles related to the primary articles searched.

1 study of Modernization in Higher Education in Europe – Academic Staff.

1 European Charter & Code for Researchers.

5 official websites of Czech and foreign institutions.

#### VI. The total number of the resources used for the processing of this systematic review:

9 primary sources + 19 supporting sources.