

ANALYSIS OF THE BRAIN DRAIN PHENOMENON AND SOCIO-ECONOMIC IMPACT AT EU LEVEL

Ovidiu Andrei Cristian BUZOIANU^{a}, Cosmin ANDREICA^b, Carol Cristina GOMBOS^c,
Anna KANT^d, Mihai DINU^e*

^a Ph.D., Bucharest University of Economic Studies, Romania

^b Ph.D. Student, University of Bucharest, Romania

^c Master Student, Bucharest University of Economic Studies, Romania

^d PhD Student, Valahia University of Targoviste, Romania

^e Lecturer PhD., Bucharest University of Economic Studies, Romania

ABSTRACT

Today's world economy is strongly influenced by profit-oriented directions and the conquest of sales markets. The competition has become fierce, out of bounds and able to use unethical methods. The desires of rich people have seen an escalation that has affected many countries, transnational corporations or economic blocs. The race for better living conditions or the accumulation of wealth and capital seems to be the main concern of potential financial people and economic conglomerates. It is practically about money, influence, profitable relationships. In this situation that must produce added value, the most unjust are those who work. Nowadays, this phenomenon, called brain-drain, is constantly evolving and has reached impressive proportions. Among the favorable elements are: the trend of globalization, the concentration of capital, the desire to seize markets, the advance of high technologies, the emergence of economic blocs. The expansion of economic systems in any direction has as main support research, innovation, digitization, robotization that leads to increased performance. In this article we want to develop a hypothesis according to this migratory phenomenon brings more and more the contribution of the structural change of the population within some territories.

KEYWORDS: *brain-drain, development, economic, migration.*

1. INTRODUCTION

Achieving the goals can only be done with the support of specialists, who are unscrupulously attracted from any corner of the world, generating a migration of intelligence to rich countries (Bran et al., 2018). Highly trained young people are looking for an environment that guarantees the quality of the training and education process with the international recognition of the obtained qualifications (Bodislav et al., 2020). The perspective of higher material incentives and the possibility of promoting the most competent in: educational institutions, research or in strong transnational companies is not to be neglected (Rădulescu et al., 2020). The host country benefits from an intelligence capitalization effect from other countries, a phenomenon known as "brain-gain". If specialists do not return to their country of origin, the exodus of intelligence leads to a waste of the added value potential it could have generated for the development of society (Profiroiu et al., 2020). Usually, the intake of repatriated brains is significantly higher than that of the rest of the population (Rădulescu et al., 2020). The leakage of intelligence is increasingly affecting Romania, which has joined the group of donor countries (Aarnikoivu et al., 2019). Entire sectors of the economy are suffering due to the lack of

* Corresponding author. E-mail address: buzoianuvidiu@yahoo.com

specialists and the gap is widening at every moment . No one knows or can reduce the size of the loss of intelligence, even if some measures have emerged that have proven to be too weak (Negescu Oancea, et al., 2020).

Today the process is presented as a constant transfer (drain-drain) of specialized people (brain-brain) from some less developed countries, usually to others more economically powerful (Alam & Hoque, 2010).

Among the emigrants, in general, those who are specialized or with higher education are not individualized, which makes it difficult to quantify this type of movement of people due to the lack of statistical data (Grecu & Titan, 2016).

The Romanian translation of the term *brain-drain* knows several phrases: brain migration, brain drain, brain drain, brain theft, staff recruitment, theft of intelligence, exodus of skills, depending on the political regime or authors.

Two characteristics can be presented as indisputable: the exodus is voluntary with the specification that it is encouraged by the receiving countries and slowed down by the countries of origin; the investment in the education of the person leaving is lost because he does not usually return to his country of origin (Burlacu et al., 2021). Hence the association with the term capital flight, which refers to capital that is no longer invested in the country that created it and is forced to move in different directions (Bodislav et al., 2020).

2. MANUSCRIPT

2.1. Analysis of the migration of intellectuals at European level

The leakage of intelligence seriously and in the long run affects the economies of donor countries, the most exposed in Europe being the former communist states, which risk being left without the intellectual resources necessary for sustainable development (Burlacu et al., 2019). The countries that import the most intelligence in the world are the United States and Canada due to the working and living conditions offered and an attractive scholarship system (De Concini, 2019). Students and intellectuals from Eastern Europe initially migrate to more developed European Union countries where they complete or complete their studies, and then follow a second phase by migrating to other more attractive countries (Bodislav et al., 2019).

2.1.1. The situation in the European Union

In developed European countries, the need for specialists is supplemented naturally, by attracting them from poorer countries (Boc, 2020). Albania is the country that has suffered the most losses due to the exodus of intelligence: 40% of intellectuals, most younger under 40, left after 1990. At the opposite pole is Croatia, which has managed to create a competent university system with to the allocation of resources for research, which stopped migration and even led to the repatriation of intellectuals. Progress in restructuring higher education has also been made by Serbia, which has directed a substantial part of European funds to the sector. Montenegro has implemented a strategy of cooperation with western universities, which have received a major infusion of researchers from the east. Adapting to requirements and collaborating are much easier through this strategy.

At the level of the European Union, there are concerns to create conditions for study in higher education, to strengthen collaboration with intellectuals in the diaspora and to reduce competitive gaps (Cavallini et al., 2016).

The main actors in the European Higher Education Area are academics and students around whom all EU programs revolve. The ultimate goal is to ensure the widest possible, most integrated support for interdisciplinary cooperation that is flexible and goes beyond the community space. Statistical estimates show that the number of EU students studying in another European country is increasing by 5% annually. This increasing dynamic has failed to exceed the rate of growth of the number of

students. The share of foreign students in the total number of students has remained relatively constant lately, reaching a multiannual average of about 2%.

The most mobile students are those from Luxembourg and Cyprus, followed by those from Malta (over 10% of the total) due to the reduced supply of universities in the local market. It continues with the Greeks, Irish and Slovaks. In order to be effective, the listed strategies need an important access to the higher education institutions from abroad, but also the capitalization in the country of origin of the obtained specializations. This involves the return of intellectuals, the use of knowledge gained abroad and the creation of conditions to remain in their homeland (Grigolo et al., 2010).

2.1.2. The migration situation of Romanian intellectuals in the European Union

The exodus of intelligence has reached dramatic levels in our country due to the growing number of specialists who leave Romania and choose to work in other countries. There is still a worrying trend that refers to the number of high-performing Romanian students who migrate to Western education systems without returning home. The vast majority of these students go through scholarship systems which then allow them to be easily recruited into the labor market. Some have the right to work even during their studies, in order to supplement their income. The choice of students is based on strict performance criteria and Romania loses the smartest young people every year (Toma & Villares-Varela, 2019).

According to World Bank estimates, only 12% of Romanians returning from abroad come with a university degree. It should make the authorities think that we are quite low in a ranking of countries with students studying abroad, ie just over one in a thousand Romanians, three times less than Bulgaria. Very few foreign students come to study in our country, and half of them are from the Republic of Moldova. Completing the necessary specialists is difficult to achieve from this resource. The fate of Romanian students who went to study in a foreign university does not interest anyone: what level of qualification they have, in what fields, how many return, to what extent they are integrated by the Romanian society (Courtois & Veiga, 2020).

It is necessary to attract young specialists to capitalize on their potential, experience and orientation towards innovation and new technologies (Dickinson & Perry, 2002). Romania has too few students and graduates, especially in the age category over 30 years. All the more so should the money raised from taxes and duties go to a much greater proportion to education. The Government's strategies must be oriented towards supporting the access of Romanians to foreign higher education institutes, but also towards capitalizing in the country on the training obtained in foreign universities. In the process of training specialists, it is useful, according to the experience gained by other countries, to attract private funds to increase the competitive environment. Investment in human capital cannot be recovered, due to the lack of necessary levers to capitalize on the education of those who emigrate.

In the last 25 years, Romania has become a real source of qualified personnel for the countries of the European Union. After integration, the phenomenon became more pronounced, gaining worrying accents. The European Commission has conducted a study, from which data can be extracted on the most common occupations of Romanian emigrants in the EU. The data represent the updated or not updated reports of the countries that have received labor force from Romania and can be discordant, but they create a picture with multiple meanings (Cristea et al., 2017).

Table 1. The most frequent qualifications of Romanians who emigrated to the European Union

No.	Qualification	Peoples
1.	Nurse	8.892
2.	Doctor of Medicine	7.938
3.	High school teacher	3.875
4.	Dental technician	2.689

5.	Psychotherapist	1.238
6.	Veterinary surgeon	986
7.	Chemist	873
8.	Electrical installation expert	846
9.	Master builder	938
10.	Energy engineer	717

Source: www.sar.org.ro

The fact that four out of five migrant specialists in the EU are in the medical field explains the deep dissatisfaction that dominates this Romanian system, the appreciation it enjoys from the European institutions and the absorption power of the community countries (Lutz & Amran, 2019). If we take into account the specialists who emigrated to other countries around the world and the fact that the figures are not accurate, we can call the exodus of health intellectuals a great loss for our country.

2.1.3. Analysis on migration in the medical sector

The statistics are based on the requests made by specialists to pursue the profession in another country and are expected to be higher than those recorded in the statistics of the destination countries.

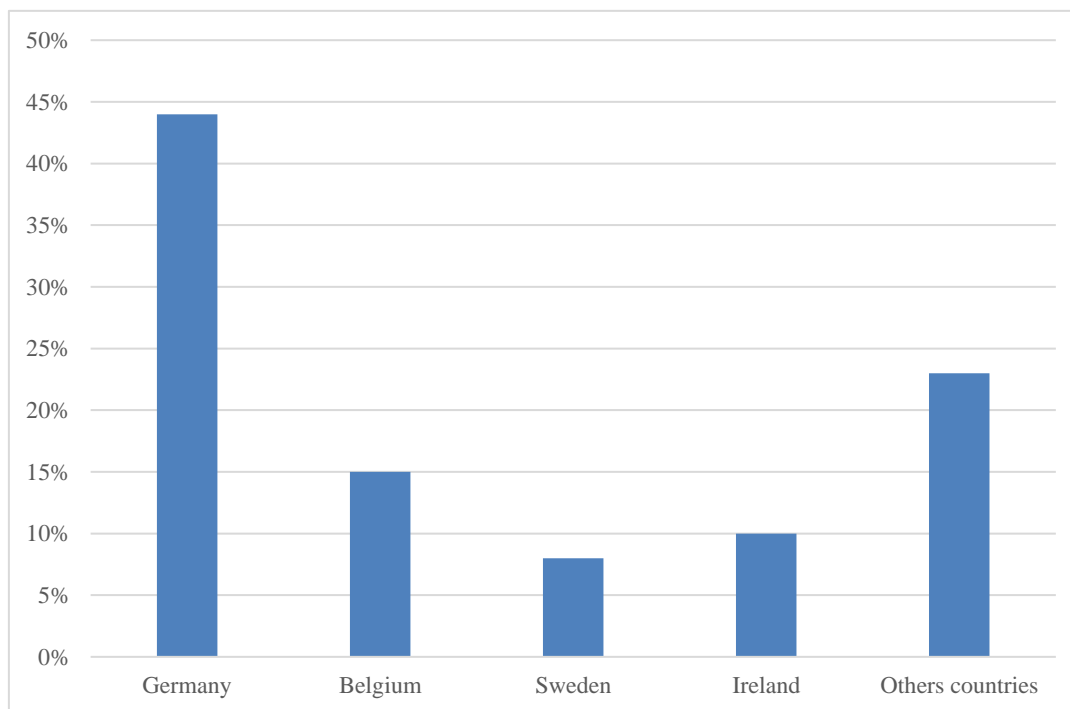


Figure 1. Ranking of the first countries in which doctors from Romania migrated (%)

Source: www.ec.europa.eu

Germany leads in the top of the absorption of Romanian doctors with 44%, which proves a continuous need to supplement with medical specialists. The determining factor seems to be the institutional one (the need for doctors in many hospitals), but the large number of medical doctors who migrate to other countries where they have better perspectives in practice and research should not be neglected. Followers Belgium (15%), Sweden (8%) and Ireland (10%) have created an easy system for receiving specialists from other countries. The other EU countries that received doctors from Romania together account for 23%, led by Hungary (4.4%), Greece (3.9%), Italy (3.7%) and Switzerland (2.4%) and Spain (2.6%). Other countries reach percentages below 1%.

The statistics lack France, which did not want to reveal the number of doctors whose country of origin is Romania. Any specialist who migrates to other countries faces from the beginning the recognition of diplomas obtained in Romania. It is possible for the host country to practice criteria for evaluating studies different from the Romanian ones and to reach the total or partial recognition of diplomas which leads to conferring the right to work with or without completing studies or can move to new stages of specialization. It is interesting to study the extent to which EU countries have recognized the diplomas obtained by Romanian doctors in their home country.

2.2. Measures to stop the exodus of Romanian intellectuals

Diplomatic budget holders in Romania work in areas that should be a priority in long-term development strategies: health and education. The quality of benefits in these areas is influenced by a total lack of respect in terms of pay.

It is natural, especially after we have concretely analyzed the situation in the previous subchapter, to have a deep and general dissatisfaction with the salary level. The workload, in some cases, the responsibility and the material they work with are just a few reasons why the attention of the rulers should be directed towards supporting the two sectors. The political will should exist and materialize, especially due to the fact that the Romanian Parliament is dominated by intellectuals who unfortunately forget where they left off and plead only for high salaries for the positions they currently hold.

The World Bank conducted a study on the gross incomes of doctors on various meridians of the globe that were compared to the GDP per capita in that country. The analyzed economic indicators did not undergo major changes and the general evolutionary directions of the economies stagnated.

Table 2. Physicians' earnings compared to GDP

Country	Average gross income	Earnings / GDP per capita
Netherlands	288	8,8
SUA	275	6,8
Germany	187	5,7
France	188	4,9
Portugal	82	4,6
Italy	90	3,3
Sweden	85	2,5
Romania	8,5	1,1

Source: The Word Bank.GDP per capita

The rising work variable is the ratio of gross income to GDP per capita that actually expresses the state's concern for physicians by providing appropriate remuneration. The Netherlands is seconded due to the very high ratio, followed by the US and developed EU countries. It captures Portugal's more than honorable position. The political will of the Romanian rulers, by the fact that a doctor's income is almost identical to the GDP per capita, is directed towards an endless maintenance of salary levels for some professionals who do not directly produce surplus value, which is why they can be neglected. .

The concerns that can help Romanian specialists have had clear results only on paper. In addition to adhering to European measures and programs that proved to be poorly managed (example SOP HRD-sectoral program for human resources development), the Romanian governments have formulated measures with a general specific relaunch: specialization and requalification programs, European funds aimed at young people (€ 9.5 billion is allocated by 2025), supporting entrepreneurship in any field, encouraging individual or small and medium-sized economic businesses. The listed ones are in fact general measures with a minor impact for specialists with liberal professions (establishment of

medical offices, development of audit firms, offices for individual trades, etc.). The listed measures can only help the private sector, much smaller on social life, compared to the importance of education and health systems that should be at the forefront of concerns.

Economic development, labor productivity and staff loyalty are directly proportional to the size of remuneration, which is, in turn, inversely proportional to taxation. The large number and size of taxes, duties and contributions in our country suffocate any economic or wage growth initiative.

The state no longer has the possibility of horizontal collection due to the decrease in the number of taxpayers, and the vertical expenditures seem to increase indefinitely due to the large number of social workers.

There are legislative initiatives that seek to reduce taxation or grant directly or indirectly amounts that are included in earnings. These initiatives have been materialized as follows:

- fiscal measures to encourage investment and create new jobs:
 - different tax rates for micro-enterprises depending on the number of employees (for those without employees 3% of turnover, for those with two or more employees 1% of turnover);
 - reduction of the tax rate for dividends from 16% to 5%;
 - reduction of VAT for the delivery of drinking water or for irrigation to 9%.

These measures encourage the liberal professions: lawyers, doctors and dental technicians, high-tech specialists, auditors, agronomists, etc. who are more tempted to open their own businesses in Romania than to emigrate. Even if they work abroad, they can participate in the development of some companies by repatriating their own capital due to the low tax on dividends. The measures also aim to bring more gray areas to the surface by increasing the level of tax collection.

- measures addressed to high-tech specialists:

The application of the regulations practically leads to the exemption from the payment of the profit tax (16%) of the software specialists. The application is made only if certain conditions are met:

- type of position and classification of the person;
- minimum documentation of the supporting file;
- the conditions that the employer must meet, respectively the activities considered as program creation.

3. CONCLUSIONS

The study of the brain-drain phenomenon leads us to direct conclusions obtained through the ability to interpret statistics, but can be the starting point for creating a new system worldwide by anticipating its effects. The management of the intelligence exodus is influenced by the positioning of top decision makers who have different visions. In this way, guidelines are produced on the generating causes of the very different phenomenon: the allocation of production factors in the global economy; free movement and mobility of human capital, a resource that migrates to countries where it is better rewarded; the impulse is generated by the institutions with a role in human capital management; opportunities to recover investments in human capital.

The migration of specialists creates a series of unpleasant consequences which can be: the institutions that govern parts of the budgeted economy lose human capital; the phenomenon generates a potential loss of volumes of goods or services in the productive sector; because investments in education cannot be recovered, public money is spent without being recovered; with each departure there are tax losses because all costs with pensions, health, etc. will be supported by a smaller number of taxpayers left in the country.

The brain-drain phenomenon also has many positive effects: it stimulates the improvement of people; contributes to the increase of trade flows due to earning income in one country and spending part of the income in another country; contributes to economic growth by sending money to the country of origin; contributes to the intensification of technology and know-how transfer; stimulates the entry

of foreign investment in the economy; relations in the scientific and research fields are intensified through collaborations with the diaspora.

The main causes of the phenomenon of human capital flight are: people's natural desire to find new economic prospects, recognition, higher incomes and a better life. Favoring factors are usually divided between countries of origin and host countries, and specialists have created models that include these factors as push-pull.

The pushing part is caused by the lack of decent conditions and perspectives in the native countries of the specialists and materialized by rejection, and the pulling part is ensured by conditions offered by the beneficiary countries to which the intellectuals dream.

A suggestive image is one that uses attraction and repulsion between the poles of permanent magnets: an intellectual is a small magnetic core under the influence of two magnetic fields, one with the pole of the same direction to its own pole (mother country-rejection phenomenon), and the other with the pole of different direction to its own pole (host country-phenomenon of attraction).

Qualitative standards in higher education are due to investment, which explains the major differences between countries. The performances obtained justify the increase every year of the funds allocated to education in most countries. Obtaining funds is achieved a certain system by attracting private holdings along with public funds. The management of private funds aims mainly at supporting an early and less higher education. These funds are the ones in sight, because any economic entity with higher turnover invests in the ripe fruit. All transnational companies, which often have larger capital than many of the countries in which they do business, prefer to attract experienced specialists who are directly involved in the production processes or in the development of research centers.

The technological advancement registered worldwide in the last 4-5 decades and the rapid implementation of new technologies have opened the appetite to use tools that now seem indispensable: from personal computers and specialized gadgets, to communications, robotics, transportation, etc. Their design and realization is within the reach of professionals who go beyond the old requirements of trades and specializations. Thus, professions with a small number of specialized people have emerged that will penetrate the labor market in the future and will impose themselves to the detriment of professions practiced by a large number of people, but in a sharp decline in demand. Countries that gain from the intelligence exodus will be able to impose themselves to meet new demands.

The anticipated effects must be minimized through maternal care for gifted young people who must be supported and determined not to leave Romania except to complete their studies. The classical system of work must be replaced by one based on skills generated by new realities. Each of us, regardless of our place in society, must be concerned with the education of young people.

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