

EXPLORING OPPORTUNITIES FOR THE RETURN OF BULGARIAN MIGRANTS IN RESPONSE TO THE GROWING NEED FOR SPECIALIZED STAFF IN SOFIA

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Abstract:

This article examines the issues related to Bulgarian migration after the country acceded to the EU in 2007 and focuses its research on the phenomenon of “brain drain” – the process of mass emigration during which specialists, scientists and skilled workers leave. Today, this phenomenon is quite typical for Bulgaria as part of the former socialist countries of Eastern Europe. The problems associated with the “brain drain” are very relevant as the country suffers significant economic and cultural losses while the host countries acquire large and inexpensive intellectual capital.

During the years of transition, Bulgaria strives to be a full member of the EU and provide opportunities for development and realization of specialists, scientists, and researchers. This requires the adoption of measures and initiatives to establish sustainable development in the capital and in the country and meet the need for highly skilled labor in the industrial sphere.

The article aims to explore the possibilities for the return of Bulgarian migrants in response to the growing need for specialized staff in Sofia. The quantitative study involved more than 500 Bulgarian migrants residing in different host countries, selected randomly and responded voluntarily.

The article defends the thesis that if Bulgaria provides opportunities to develop specialized staff through the undertaking of specific initiatives, this can be an attraction and a motive for the return of Bulgarian migrants.

The study methodology utilizes the quantitative studies model (and, more specifically, the questionnaire method). To obtain more reliable results, their interpretation also includes additional statistical tools. The question whether a correlation exists between the age and the degree of settlement of Bulgarians abroad is of special interest and has been investigated using the Cramér V.

The results show that in recent years the need for specialized staff is constantly growing. In response to this need, the initiatives that are undertaken are aimed at innovations in science and education. The study also takes into account the readiness of Bulgarian migrants to return home.

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Introduction

In recent decades, migration has been a phenomenon (Castles, 2010: 1567) that contributes to global political, economic, and social changes (Castles & Miller, 2013: 7). Demographic trends in the EU, such as the increased migration flows and constant aging of the population (European Commission, 2015), along with the lifting of the internal borders of the Union, raise a multitude of questions in the context of migration and the reasons associated with it (Vietti & Scribner, 2013: 22). Today, migration influences the countries of origin in various ways – depending on the size, composition, and nature of migration flows and the specific context of the migrants' origin. The key aspect of migration this article addresses is related to the phenomenon of “brain drain”. Authors explore the issues related to Bulgarian migration after the country's accession to the EU in 2007 and focus their research specifically on this emigration process, in which specialists, scientists, and skilled workers leave.

Unfortunately, in the years of transition to a market economy and the years after the country acceded to the EU, in Bulgaria, the “brain drain”, often also called “flight of human capital” (Breinbauer, 2007: 3), happened at levels interrelated with emigration. On the one hand, geographical brain drain – many talented specialists left the country in favor of other host countries. On the other hand, industrial brain drain – where qualified workers leave not just a certain company, but also a whole industry in favor of their development, but for other countries' industries and production sectors. In the context of Bulgaria, common reasons associated with emigration that accelerate brain drain on a geographical level are sought in political instability, poor quality of life, limited access to healthcare, insufficient economic opportunities, lack of fulfillment and development. These factors cause skilled and talented workers to leave the country and head to places offering better opportunities. Industrial brain drain in Bulgaria is a side effect of the slowly developing economic landscape after 1989, in which on the one hand, the privatization process contributes to the closing of huge production factories and companies, and on the

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other hand – the industries that remain are found incapable of keeping track with technological and societal changes, and ultimately lose their best specialists and skilled workers.

Despite this, Bulgaria has started its gradual economic, social, cultural recovery. After its accession as a full member, the country aims to both rhythmically utilize EU funds under operating programs and to accelerate the implementation of these programs to achieve more investments, and also to ensure opportunities for development and fulfillment for specialists, scientists, researchers, and the development of sectors most affected by the transition – the country's industry, manufacturing, production sectors. This requires measures and initiatives to be undertaken to establish sustainable development in the capital and throughout the country and meet the need for highly skilled staff in the industrial sector.

All this defines the main goal of this article, namely to explore the opportunities for the return of Bulgarian migrants in response to the growing need for specialized staff in Sofia. In the course of their investigation, authors defend the thesis that if Bulgaria provides development opportunities for specialized staff by undertaking specific initiatives, this could be a way to attract them and a motive for the return of Bulgarian migrants. Proving the thesis is an indicator for the return of highly skilled staff, which is a prerequisite for implementing undertaken initiatives, considering the growing need for specialists, and stimulating the industrial sector within the country and its economic development.

The conducted survey involved 530 Bulgarian migrants residing in various host countries selected randomly and participating voluntarily. Results of the conducted secondary review of data and the empirical review show that in recent years, the need for specialized staff has constantly grown, at the same time as the opportunity and motivation of this type of migrants to return to Bulgaria has increased. In response to this need, the initiatives which are being undertaken are aimed at innovation in science and education by building a multi-level educational center. The study also takes into account the readiness of Bulgarian migrants to return to their country of origin.

Literature review

Most often, literature offers three theoretically different motives for migration: (1) preserving the individual (physical, social, and psychological safety); (2) self-development (personal growth, development of abilities, knowledge, and skills, acquiring competence); (3) materialism (financial prosperity, better life).

For many years, theoreticians and researchers have tried to figure out the nature of motivation for migration (Winter-Ebmer, 1994) and to identify factors supporting the specific motives for emigration. In this regard, a key question is why people emigrate from their homeland? What personal, social, economic, and cultural variables are these motivations' critical predecessors and correlations?

For a long time, the so-called "deficit model" dominated attempts to understand the motivation for migration. The key assumption in this model is that potential emigrants have less personal and social resources compared to the general population of their country of origin (Littlewood & Lipsedge, 1989). The deficit model is often linked specifically to the individual's identification – the individual who suffers from social insufficiency and economic hardships in his/her country of origin. According to this model, every migration is motivated by the migrant feeling of lack of identity and belonging, some uncertainty and inadequacy in his/her initial social environment (Ibid). The deficit model is very realistic and especially applicable for economic emigrants to the United States after the Second World War, for refugees from Arab countries who emigrated to Israel in the 50s, for a part of Turkish migrants from Bulgaria in 1989, for the refugees from the Arab spring in 2011-2012. However, applying the deficit model to migrant groups placed as the focus of the article (highly skilled specialists, scientists, researchers) is problematic. Sometimes those who choose to emigrate are specifically the people with great personal resources, opportunities, education, flexibility. This also leads to calls to replace the deficit model with a broader theory of emigration and its motivation (Winter-Ebmer, 1994). This broader theory recognizes the weaknesses and deficits of some emigrants and the strengths, opportunities, and abilities of others, their aspirations, goals, and values.

People usually aim to achieve their goals and express their values in their homeland, identifying with their original society or social group. Despite this, when life in their own country hinders or jeopardizes implementation of the goals defined by such groups of highly skilled specialists, some adapt by emigrating. They emigrate to follow their perspective, better express or protect their values, and seek

their personal identity and belonging by achieving these goals, development, and fulfillment, but in another host country. Some studies on emigration mention the main goals people can pursue by leaving their country of origin. In the context of "brain drain", these goals include identification with similar groups, personal growth, achievements, fulfillment, security. Studies of emigration also explore the role of such motivation constructions as seeking a feeling, motivation for high achievements, stimuli for discoveries, professional recognition, and identification (Tartakovsky & Schwartz, 2001).

The migration context outlines Bulgaria's profile as an emigrant country, and the Bulgarian migration phenomenon is extremely interesting as an object of analysis in the context of "brain drain". The issues of Bulgarian emigration are directly linked to national security and national identity and the country's economic growth (Krasteva, 2014). The quantity and quality of the workforce and the leaving of young, qualified, and highly productive staff have a direct and very significant effect on Bulgaria's economic growth (Todorov & Durova, 2016: 33).

The construction of the modern Bulgarian migration phenomenon is summed up in the periodicity of the main stages of its formation after the Second World War. Five periods can be identified in the formation of the modern Bulgarian migration phenomenon: communist, post-communist, European, migration refugee crisis, post-crisis. This study focuses mainly on the so-called "European" period of Bulgarian emigrants – the period after the country's accession to the EU from 1 January 2007. Going back a little (from the 90s until the beginning of Bulgaria's accession to the EU), however, it is observed that the country is undergoing a gradual transition from a closed society to an open one. It is this period that marks the most potent emigration of Bulgarians from the country. A key moment here are the years 1996-1997, when the labor market in Bulgaria entered the most dramatic phase of its development – a drastic depreciation of the national currency began, with inflation reaching record levels. Studies show that in the first years of democratic changes in the country, emigration played a major role in the process of transition of Bulgarian labor markets. This means that if emigration had not existed at the time, unemployment and downward pressure on remuneration (both in the emerging private sector and in the restructuring public sector and industrial sphere) would be at a much greater scale (Minchev and associates, 2012: 286). Those years also marked the start of privatization processes in the country. The labor market was described as "unstable": with a great surplus of the workforce and a huge number of unemployed in all professional sectors.

In such context, it can be assumed that leaving workers (especially those with low qualifications) could be easily replaced without any costs or at minimal cost and be trained at the job. However, for specialists and highly skilled staff, things were very different. On the one hand, in the short term, their leaving eased the pressure on the labor market in the period created by the surplus of this type of highly skilled staff and the market's inability to absorb them. However, on the other hand, in the long term, the outflow of highly skilled workers and their routing toward countries outside of Bulgaria created a new surplus in the country.

M. Wolburg (Wolburg, 2002) states that in 1989, some 20,000 scientists, specialists, and highly skilled staff left Bulgaria, heading west, mostly to Germany, Ireland, the United Kingdom, and France. In the period 1990-1992, they were followed by another 40,000 specialists (Straubhaar, 2000). For the same period, Bulgarian sources establish another 40,000 scientists who have left (Sretenova, 2003). Chobanova (Chobanova, 2003) states that for Bulgaria, each year in the last decade of the 20th century, the country lost a small town with a population of some 55-60 thousand people of its most highly educated and skilled residents. In a study, V. Horvat (Horvat, 2004) determined that Bulgarian students are among the most numerous groups within Southern and Eastern Europe in many European countries. Bulgarian scientists are usually very highly skilled.

The brain drain has very serious consequences for the country. The loss of key staff makes it extremely difficult to ensure the main areas of public life. Emigrating doctors complicate the system of normal healthcare. Teachers who lose their workplaces because of the great reduction of fertility in the country and the small number of newly enrolled children are forced to emigrate. This creates a long-term shortage of staff in the educational system. As a result of ethnic expulsion of Bulgarian Turks in the early 90s, a study by D. Bobeva based on Turkish statistics (Bobeva, 1994: 227) found that the country lost some 9,000 people with university diplomas – doctors, engineers, agriculture, production and industrial specialists, accountants, teachers. A study conducted in Bulgaria (Minchev et al., 2012: 275)

found that a rather high percentage of Bulgarians (42.7%) tend to believe that the most skilled, motivated citizens with democratic views usually leave is detrimental for the country's economy and society.

Latest data shows that compared to the periods of mass emigration before 2007, the number of Bulgarian migrants is smaller, but still marks growth with each passing year (except a small dip in post-crisis years) negative migration balance.

Period	Settled	Expatriated	Migration balance
2007	1561	2958	-1397
2008	1236	2112	-876
2009	3310	19039	-15729
2010	3518	27708	-24190
2011	4722	9517	-4795
2012	14103	16615	-2512
2013	18570	19678	-1108
2014	26615	28727	-2112
2015	25223	29470	-4247
2016	21241	30570	-9329
2017	25597	31586	-5989
2018	29559	33225	-3666
2019	37929	39941	-2012
Total	213184	291146	-77962

Source: National Statistical Institute (2021).

The reasons for the increase of the number of emigrants after 2007 can be sought mainly in the fact that Bulgaria's EU membership has started to provide visa-free travel to approx gradually. 150 countries around the world and free access to the EU labor market since 2014 (Angelov & Lesenski, 2017: 1). Three trends characterize the European period of Bulgarian emigration. The most motivated migrants have already left the country, i.e., the first trend is linked to the legalization of the status of irregular residents (Angelov & Lesenski, 2017: 1). The second one is comprised of the transition of Bulgarian nationals who have chosen to live and work in another EU member state to a new migration category – free movement of people. The dynamic of flows follows mainly the economic policy, most obviously in an economic crisis. The third trend is the return of Bulgarian migrants.

Bulgarian emigration after 2007 is directed toward several groups of countries. Germany is very attractive due to its powerful economy and the demand for a highly-skilled workforce. Another strong center of attraction are the Mediterranean countries – Greece, Italy, and Spain. Classic immigration countries, the USA and Canada, also continue to attract highly skilled Bulgarians to this day. The case of Turkey is more peculiar. The large Bulgarian migration community was created mostly due to the expulsion by the communist regime in the summer of 1989 of over 350,000 Bulgarian Turks. A part of this flow returned when a democracy was established, but the emigration of Bulgarian Turks to Turkey for economic reasons, including highly skilled staff, continued throughout the entire democratic period.

According to research, about 30% of working Bulgarians in one of the most preferred countries in the EU (Germany) are highly qualified (Statistisches Bundesamt, 2019), established as a group of specialists - doctors, scientists, engineers, etc., who have established themselves, thanks of their professional skills. A high percentage of highly qualified specialists is also found in France, Canada, the United States, and the United Kingdom (Ibid). It is from these countries that the greatest money transfers are sent to Bulgaria. In the long term, there are no factors for Bulgaria that could compensate the extended "brain drain", even the cash transfers, which comprise an important component of the entire foreign financing of the Bulgarian economy in the period after 2007 (Minchev et al. 2012: 226). These cash transfers can compensate temporary financial shortages but do not replace the tremendous losses of the Bulgarian society from the outflow of highly skilled staff, as this part of the workforce specifically is the basis for the implementation of new technology and the development of the real economy. This unfavorable trend is probably among the main circumstances that have slowed down the transition processes to a market economy, restructuring the Bulgarian economy, and growing the efficiency of labor.

Despite the difficult transitional years, Bulgaria is starting its recovery. The country's pronounced economic growth in the years after the start of the new millennium also continued in the first years after its accession to the EU. In 2007-2008, economic growth reached 6.7% (European Social Fund, 2018: 13) on average per year, showing acceleration compared to the average annual growth of 5.8% registered in the period 2000-2006. The country's economy capitalized on a number of reforms implemented in the pre-accession period, which improved the institutional framework and created conditions for improved efficiency. Enthused to join the Single market, investors further increased their activity, and investments in the economy reached 35.3% of the GDP, while attracted foreign investments amounted to 23% of GDP (Ibid: 13). Expanding internal demand was fueled additionally by private consumption, which grew within the double-digit range in 2007, positively influenced by record-high employment (and respectively, record-low unemployment) and growing incomes. All symptoms of a classic overheating of the economy were present, which was stopped by the global economic crisis, which affected the country with some delay. The economic downturn of 2009 was followed by a lengthy period of slow economic recovery, in which economic growth did not exceed 2%. After 2014, however, economic growth in the country accelerated once again, although still remaining below pre-crisis levels. In this way, the country continues the process of converging with EU income levels, although at a relatively slow pace. The GDP per capita reached 49.2% of the EU average in 2017, marking a growth of nearly 10 percentage points compared to 2007 (Ibid: 13).

Additionally, the Bulgarian companies' capacity for innovation is also improving. R&D spend grew more than 4 times in recent years (from 0.13% of GDP in 2007 to 0.57% of GDP in 2016). Studies show that the Bulgarian companies' drive for innovation positively and significantly correlates with their R&D spending and the related investments in technological infrastructure and that their production grows together with their innovation efforts. In the post-crisis years, the share of foreign financing in the structure of costs in the private sector grew abruptly, forming approximately 2/3 of them (Ministry of Economy, 2018). This is due in great part to foreign companies investing in clinical trials within the country and to multinational companies active in the information and communication technology sector, production, and various industrial sectors.

All this helped observe the third trend mentioned above – the return of Bulgarian migrants. From migration without returning to return migration is how one of the most profound changes in post-communist migration policies and practices in Bulgaria can be summed up. One of the great democratic migration discoveries in Bulgaria is specifically the return migration. Returning is important both to migrants and to the country. Governments and authorities reasonably consider it a test of Bulgaria's economic and political prospectiveness. Both during the socialist regime and after it, returning was an extremely sensitive subject. Nowadays, the practice and evaluation have radically and positively changed: policies attempt to encourage it, public opinion values return, which citizens interpret existentially as the joy of children, parents, and relatives being back together with their families; migrants take advantage of the double freedom to both return and for this return to not be necessarily permanent but to be possibly open to subsequent leaving. This new democratic freedom is extremely valuable to emigrants, even those who do not intend to take advantage of it (Krasteva, 2014).

It is clear that returning is not at the level of the ruling elite's and the public opinion's expectations, but it is gradually growing. "In recent years, some 10,000 people born within the country return to Bulgaria every year. This number has doubled compared to 2013 when the number of those returning was 4,771. In the period 2013-2016, nearly 35,000 Bulgarian migrants have returned. This number is still low compared to that of people leaving the country, but heralds the beginning of a process of return of migrants in Bulgaria" (European Migration Network, 2018: 13). The return of Bulgarian migrants can be analyzed from two perspectives: "why" – what are the reasons to return (Bakalova & Misheva, 2018), and "what influence" have those who return, what is their integration on the labor market (Zareva, 2018).

In-depth analysis of the reasons to return is beyond the goals of this article, but it is important to note that they are a non-homogeneous mix of non-economic (belonging and identity, nostalgia, great importance of values) and economic reasons (better life, wellness, status). Change in the type of migration is even more significant: while at the beginning of changes starting in 1989, migration had the goal of settling, permanent migration in the host country, today, a short-term migration project or one with a pre-defined duration it is ever more common. The reasons for motivation to migrate within the context of the "brain drain" phenomenon can be not just economic, but also non-economic, as studies

find – with the non-economic reasons prevailing (Bakalova & Misheva, 2018), among which values, identity, belonging take an important place.

Studies exploring the value system in the environment of transition to a democratic society show a gradual change in the value system of Bulgarians from collectivism to individualism (Baychinska, 1998). Bulgarians are ever more open to changes, and the more pronounced this individualism is, the more value is assigned to self-direction (values like freedom, creativity, independence, self-sufficiency, curiosity), achievements (values like ambitiousness, influence, ability, success), power (values like authority, dignity, wealth), hedonism (values like pleasure and joy of life). Thus, tradition (values like honoring tradition, temperance, modesty, religiousness) and universalism (values like equality, unity with nature, wisdom, beauty, environmental protection) become ever less valuable. In the context of migration and primarily of young highly skilled specialists leaving, the direction of studies tends toward the dynamic socio-economic and political changes in the country which are directly linked to its accession to the EU, as the dynamics of the hierarchy of values of young people who are believed to express the modern and pro-western value orientation in Bulgaria need to be tracked (Baychinska & Savova, 2009). Studies have found that hedonism and self-direction are value categories of utmost importance for young people and achievements, security, and goodwill.

In summary, it can be said that the main values for Bulgarians after the democratic changes and accession to the EU are family, peace, and freedom. Individualism, self-direction, pleasure are typical for young people. Traditions and security remain valued by the older generation (Ministry of Education and Science, 2019).

Besides values, the attitude toward emigration among highly skilled Bulgarian staff is also very important. A recent study (Ibid, 2019) on the attitude toward emigration shows that the following factors stand out as most significant: higher pay, high living standard, fulfillment, and development, supporting the family in Bulgaria. According to the study, it is these factors specifically that shape the motivation profile of potential emigrants. The study reviews research on emigration in Bulgaria and finds that they are mainly geared at the young and highly educated people with a focus on labor emigration. In another study from 2017, (Hristova, Nacheva & Andreev, 2017) research the effect of optimism and pessimism on attitudes like patriotic feelings, self-identification, the link between them, and certain demographic characteristics (sex, age, marital status, education), the influence on people's economic status. The study shows that there is a link between the levels of optimism and people's social attitudes (income, status, patriotism) and its interrelatedness with the future and the perspective in the individual's thinking on an individual level (about children, life perspective, etc.). This also takes into account the trend of understanding optimistic attitudes linked to the individual's characteristics and people's social experience.

Obviously, the types of motivation for migration derive from and manifest a set of basic human values and attitudes. In turn, priorities that people assign to values align theoretically and empirically with a broad range of personality variables. This helps link motives for emigration to the individual and his/her identification. Value priorities are also systematically linked in a theoretically predictable manner to people's social experience and demographic characteristics. This in turn helps link motivation for migration to social and demographic variables.

Based on this analysis, Bulgaria looks at the motivational potential of Bulgarian highly skilled staff to return, and the measures, policies, and initiatives that could be applied to this type of emigrants. Provided that these groups of emigrants do not exhibit seasonality and/or short-term migration, measures and initiatives which need to be undertaken must be extremely sustainable. Groups of emigrants who reside to obtain education and have a high qualification are the type that may be the hardest to return to the country. The main reason for this remains the difference in the quality and standard of living and the opportunities for development and fulfillment. However, despite this, measures can be taken both to create conditions for investments and to attract capital and companies in our country, and also initiatives which would create opportunities for the return of Bulgarian migrants in response to the growing need for specialized staff, especially in the capital, Sofia. Such sustainable conditions could be not just a potential point of attraction for this type of emigrants and their return to the country, but also an opportunity to solve the issues related to the need for staff in the production sector, for development and growth of manufacturing in the industrial sector, for the country's development, for raising of the GDP, of the population's income, for Bulgaria's economic growth as a whole.

Such initiatives can be an opportunity for the return of highly qualified staff, and also for their retention in the homeland. This is especially important for various technical, engineering, industrial, and other professions which are directly linked to Bulgaria's manufacturing sectors. Such strategies must not be aimed solely at the services sectors, as it is extremely hard to have competitive industries without the involvement of manufacturing.

Specifically, this article explores the opportunities for the return of Bulgarian migrants, in response to the growing need for specialized staff in Sofia, through initiatives providing a perspective for industrial innovation, research and development, multi-level education, and modern trends in the area of the labor market.

Data and methodology

This study is based on the quantitative studies model (and more specifically, the survey method) through deductively forming a thesis with regard to the problems of migration issues and Bulgarian emigration placed within the context of the "brain drain" phenomenon.

Its goal is to explore the opportunities for the return of highly skilled Bulgarian migrants in response to the growing need for specialized staff in Sofia. The authors have selected this method, as they aim to collect as much data as possible. And because the obtained result is numerical (measurable), authors believe that it can be much more objective for a broader representative sample and a greater number of respondents.

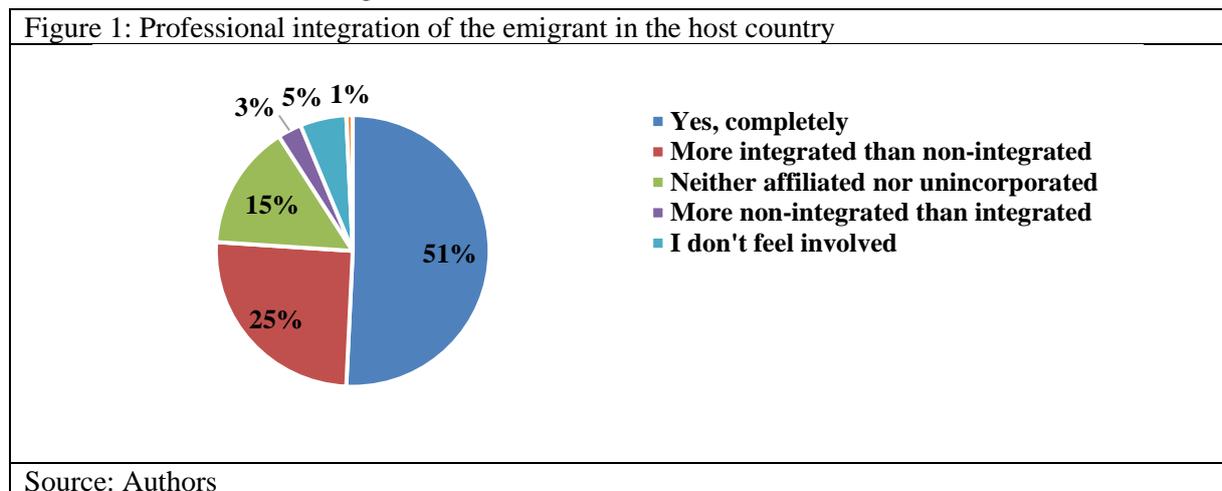
To achieve better reliability of the obtained results, this article also uses additional statistical tools. Within the context of the study, the question of whether a correlation exists between the age and the degree of settlement of Bulgarians abroad is of special interest. To study the correlation, we use the Cramér V. It belongs to the group of non-parametrical correlation ratios applied to measure the degree of dependence between phenomena represented on weak statistical scales. The Cramér V is standardized within [0;1] and is interpreted as a regular correlation ratio.

The conducted quantitative survey involved 530 Bulgarian migrants residing in various host countries selected randomly and participating voluntarily.

The methodological toolkit of the study includes a questionnaire consisting of closed-ended questions divided into two blocks: (1) main questions related to the exploration of opportunities for the return of Bulgarian migrants in response to the growing need for specialized staff in Sofia; (2) sociodemographic block to determine the profile of Bulgarian emigrant respondents (Annex).

Results and Discussion

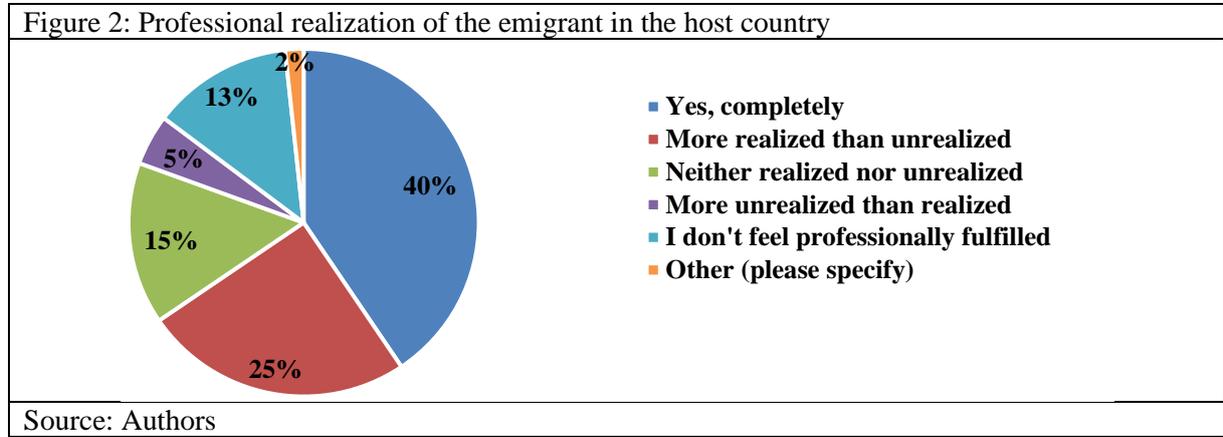
In the data below, the conducted survey shows its results as a percentage summary in pie charts. The results of the first question asked, "Do you feel professionally integrated into the country where you work?", are summarized in Figure 1:



The presented data shows that a little more than half of the participants (51% or 269 persons) feel completely professionally integrated into the country they work in. Of the 530 respondents, 25% (or 134 persons) feel more integrated than not, and 15% (or 79 persons) are neither affiliated nor unincorporated. These are followed by 5% (or 29 persons) who do not feel professionally integrated and 3% (or 15

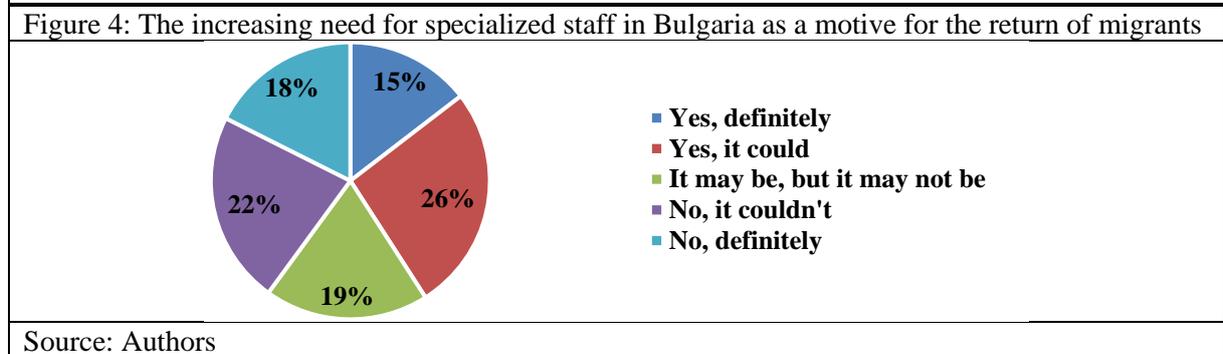
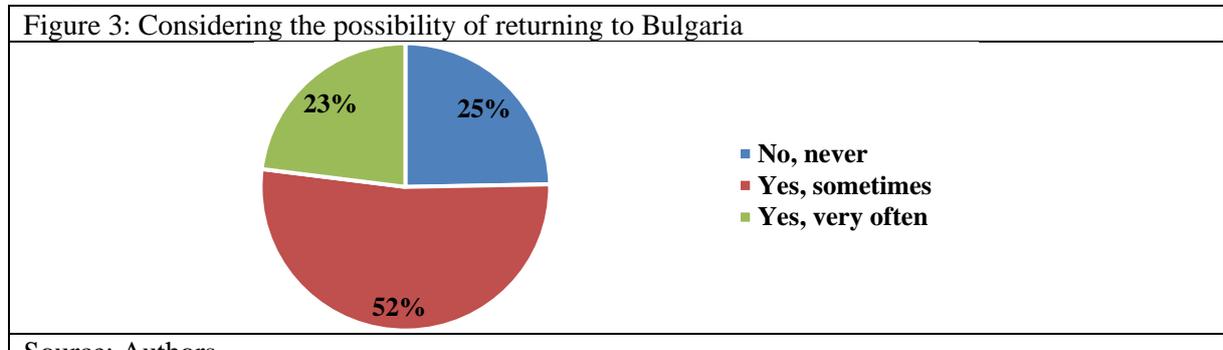
persons) who are more non-integrated than integrated. 1% (or 4 persons) of respondents answered "other", indicating that they do not feel integrated but still have continuous growth and development (2 persons), and do not currently feel integrated, as they have other commitments outside of their professional occupation (2 persons).

The next question relates to the emigrant's professional fulfillment in the country he/she lives in – "Do you feel professionally realized in the country where you live?". Data is shown on Figure 2:



Results show that 40% (or 215 persons) feel fully professionally realized in the country where they live. 25% (or 132 persons) believe they are more realized than unrealized. These are followed by respondents who are neither realized nor unrealized – they comprise 15% (or 80 persons). 13% (or 69 persons) feel professionally unrealized, and 5% (or 29 persons) are more unrealized than realized. 2% (or 9 persons) of respondents selected "other", stating that they are still students (2 persons); that they are not professionally integrated as they work in professions which have nothing to do with their education (3 persons); that they do not feel integrated, but have never been without work and compensation (2 persons); that they do not feel integrated because they are still having difficulty learning the language in the host country (2 persons).

The data provided in response to the question "Do you ever consider returning to Bulgaria?" is shown on Figure 3:



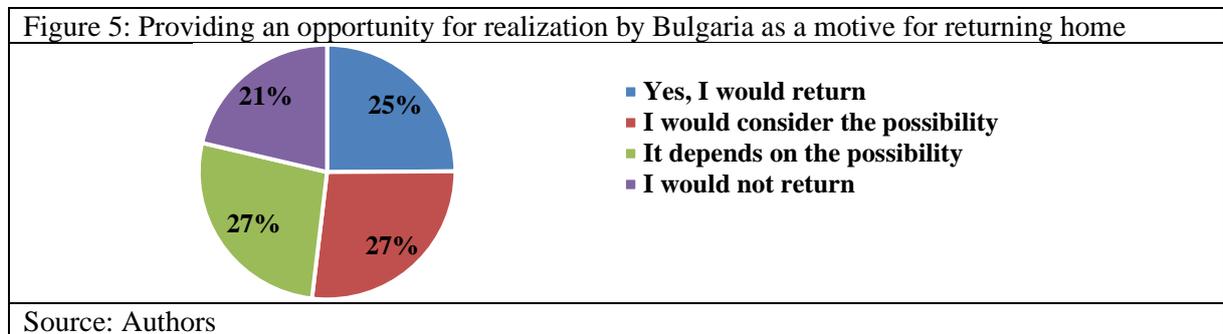
Results show that more than half of the respondents (52% or 277 people) sometimes consider the option to return to their homeland. One fourth of them (25% or 131 persons) state that they have never

considered this option, and 23% (or 122 persons) of respondents consider the option of returning to Bulgaria very often.

The next question, "Increasing the need for specialized staff in our country, can be a motive for your return?" is related to whether Bulgaria has a pronounced higher need for highly skilled specialists. This need could be a motive for the migrants' return. A summary of results is shown on Figure 4.

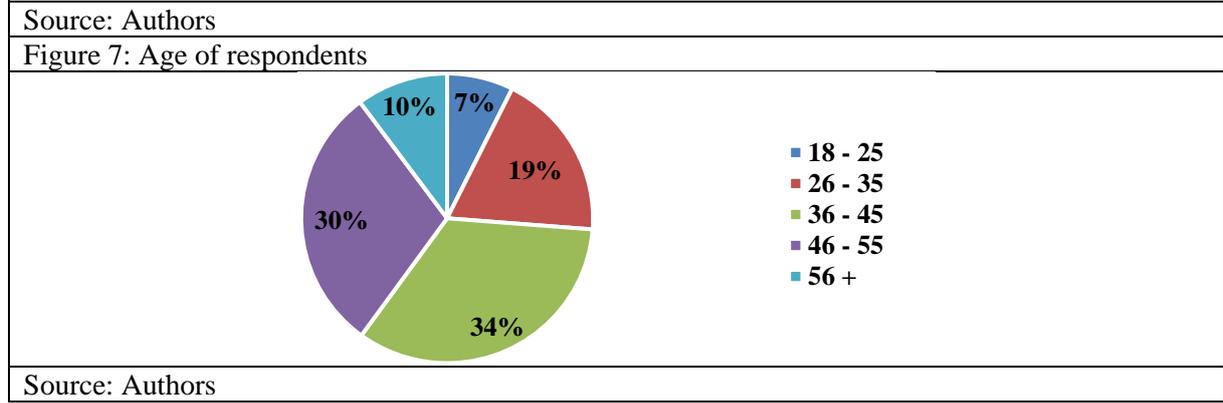
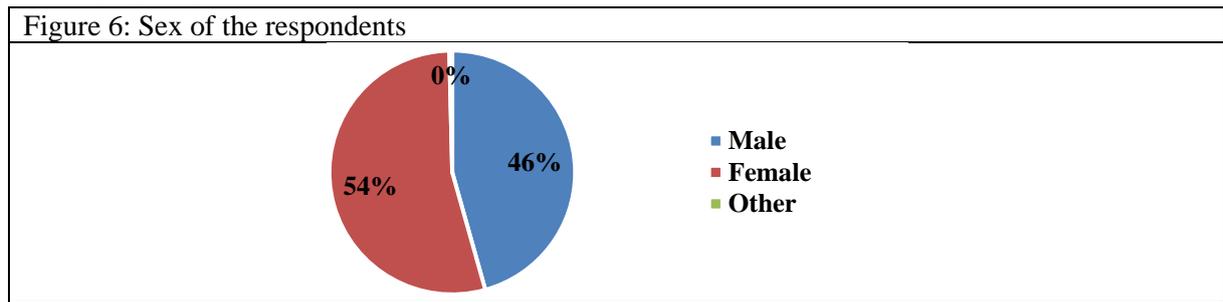
The obtained data shows that for most respondents (26% or 140 persons) the growing need for specialized staff in the country could be a motive for them to return. According to 22% (or 119 persons), this could not be a motive for them to return to their homeland. For 19% (or 101 persons), this increased need could be, but might not be, a motive to return, and for 18% (or 93 persons) this definitely could not be a motive. 15% (or 77 persons) of respondents believe that the growing need for specialized staff could motivate them to return to the country.

The last question in the main block ("If Bulgaria provides you with an opportunity for realization and development in the field of your professional qualification, would you return to your homeland?") is related to whether respondents would return to the homeland if the country provides an opportunity for fulfillment and development in the field of their professional qualification. The results are shown on Figure 5:



The results show that 27% (or 143 persons) would consider the option to return if the country provided them with professional fulfillment, and 25% (or 132 persons) would return if such an opportunity existed. 27% (or 142 persons) believe that depending on the opportunity provided to them, they would consider returning. The smallest number of respondents (21% or 113 persons) definitely would not return even if Bulgaria provided them with an opportunity for professional fulfillment.

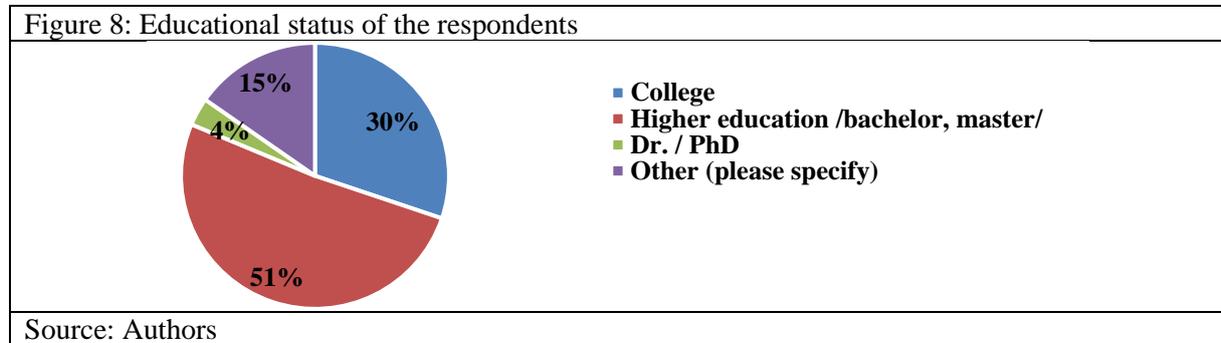
As explained above, the survey was taken by 530 Bulgarian migrants from various host countries with a demographic profile defined by 3 additional questions.



242 men (45.6%), 286 women (54%), and two persons who identified as "other" (0.4%) participated in the study.

The greatest number of respondents in the study (34% or 179 persons) are aged 36-45, followed by those aged 46-55 (30% or 158 persons) and those aged 26-35 (19% or 100 persons). Respondents aged over 56 comprised 10% (or 54 persons) of the total sample, and the smallest number was that of persons aged 18-25, who comprised 7% (or 39 persons).

Results related to the educational status of surveyed persons are shown in the following Figure 8:



The data shows that more than half of the respondents have higher education (bachelor's or master's degree) – 51% (or 271 persons); 30% of them (or 160 persons) have graduated from college, and 4% (or 18 persons) have a doctor's degree. The option "other" was selected by 15% (or 81 persons) who indicated various educational levels, such as secondary, professional high schools, specialized secondary education, or specialized secondary education with a professional qualification.

As mentioned above, to achieve greater reliability of the obtained results, the study also uses additional statistical tools regarding the question whether a correlation exists between the age and the degree of settlement of Bulgarians abroad. To study the correlation, we use the Cramér V – standardized within limits [0; 1] and interpreted as a regular correlation ratio.

Data on the results of the questionnaire were processed using the IBM SPSS Statistics 19.0 statistics program. The obtained results are shown in Table 2:

Correlations	Cramér's V
Professional integration in the country they work in	0.115
Professional realization in the country they live in	0.119

Source: Authors

The following definitions of correlation have been adopted:

- At $0 < |r| < 0.3$ – correlation is considered weak;
- At $0.3 \leq |r| < 0.5$ – moderate;
- At $0.5 \leq |r| < 0.7$ – significant,
- At $0.7 \leq |r| < 0.9$ – strong,
- At $0.9 \leq |r| < 1$ – very strong.

The obtained results in Table 2 show that the Cramér V ratio is between 0 and 0.3. This suggests that there is a weak correlation between the age and the degree of settlement (professional integration and professional realization) of Bulgarians abroad.

The results obtained from the conducted study of the options for the return of Bulgarian migrants in response to the growing need for specialized staff in Sofia allow drawing several main conclusions and findings:

- It can be said that approx. 23% (or 127 persons) feel professionally non-integrated in the host country;
- About 35% (or 187 persons) of all respondents in the survey consider themselves unfulfilled professionally in the host country;
- It can be stated that about 75% (or 399 persons) consider the option to return to Bulgaria "sometimes" and "very often";

- For about 60% (or 317 persons), the growing need for specialized staff could be a motive for them to return, and for 15% of them (or 77 persons), the growing need for specialized staff could definitely be a motive for them to return;
- It can be said that about 79% (or 417 persons) would consider the option to return (also depending on the option) if the country provided them with professional fulfillment, and 25% (or 132 persons) of them would definitely return if such an opportunity was provided to them;
- With regard to the demographic profile of Bulgarian emigrants, it can be concluded that they are men and women aged 18 to 56+, with those aged 36-55 being the prevailing group (83% or 437 persons), very highly educated and having an education with opportunities both for fulfillment and to continue their professional qualification.
- From data obtained from the study of the correlation between age and the degree of settlement of Bulgarians abroad (using the Cramér V), it can be concluded that the weak correlation shows that when a person has found professional realization and feels integrated, regardless of age, it gives them security. Additionally, people aim to increase their security both in their professional world and also for their place within the group. Thus, one of their priority goals is to create a truly integrating working environment where people from different origins feel respected and accepted, regardless of their age. This can also point to motives for Bulgarians to return to their homeland. Even if considered external, such motives are always the result of the individuals' interactions with other people, their inclusion in social groups, and their integration in social reality. They manifest in the individual's relationships with his/her relatives, friends, colleagues, superiors, reports, etc.

The obtained results give reason to state that, considering the growing need for specialized staff in Sofia and in the event that Bulgaria provides an opportunity for professional fulfillment and development, a very large part of Bulgarian migrants would consider these options, and they would be a motive for them to return to their homeland.

In this regard, and against the backdrop of the fast-developing industrial landscape of Bulgaria, and more specifically of the city of Sofia and the region as an investment destination for international companies from various sectors, there is a tremendous need for the creation of a Cross-disciplinary multi-level educational center for innovative industries in Sofia. The ever more intensive interest of multinational companies for settlement and sustainable development in Bulgaria is concentrated mostly in Sofia, as well as the work in industrial areas with a high added value leads to the clearly recognizable need to create a next-generation interdisciplinary educational center providing opportunities for industrial innovation, research, and development activity, multi-level education and modern trends in the area of the labor market, to reach young starting specialists, as well as established professionals in order to generate adequate and highly competitive working experts which are in high demand in the sectors outlined above.

In the context of the development of a green, circular, and sustainable economy, together with the companies' quickly growing requirements for qualification and specialization, institutions and the business should set a goal of creating an educational center by making this possible through the creation and development of the required local ecosystem, as well a regional and national ecosystem at a later stage.

Such a professional education center should be initiated, together with the respective stakeholders from the sector of higher education, R&D, as well as professional high schools. The vision for such a center for professional education is to cover the demand for a highly qualified workforce – training and re-qualification of existing and new employees. In addition, one of the main goals is to provide access to modern manufacturing ecosystems, infrastructure, and facilities for pupils at professional secondary schools, as well as to update and adapt the training programs at these schools to the requirements of dynamically developing high value-added industries. The concept for a center for professional education should ideally be, in essence, an open one, so that each company is welcome to participate directly in determining and supplying technical equipment, such as infrastructure, resources, devices, simulators, etc., to be able to create and provide joint personalized training courses with a vision to cover its own specific demand for education.

It would be beneficial if participants in the educational center contributed with their experience in the area of sustainable industrial development and partnership with education and research & development, and also in the creation and management of such a center with innovation and professional focus to serve as a basis; with their experience in the management of sustainable investments. They could also contribute with their experience in creating and operating strategically important cutting-edge research & development activity and creating the respective center in close cooperation with higher education.

Participation of a university in such a project would fit perfectly thanks to the well-prepared educational specialists. The link between modern technology, highly qualified experts, and the workforce and the growing added value of the national economy and industries is specifically the flexible and intelligent education – green skills and high-tech automation, as well as digitalization of industries and businesses. This link will be established by involving internationally recognized stakeholders in the industrial, educational, business, and political field, as well as those involved in the governance of green economy, green technology, sustainable development, and intelligent manufacture and circular economy.

Conclusion

Several significant conclusions can be made based on the conducted analysis and study:

- Like in most Eastern European countries, the "brain drain" phenomenon is also observed in Bulgaria in the years of transition to a democratic society and as a result of the free movement of people after the country's accession to the EU;
- Bulgaria's gradual economic recovery (incl. in the years after the economic crisis of 2008-2009), albeit at a slower pace compared to the pre-crisis period, is creating a shortage of highly skilled specialists in Sofia and within the country;
- This shortage, in turn, leads to a focus on the observed trend for the returning of Bulgarian migrants in recent years – therefore, the country has a chance to take advantage of the motivational potential of Bulgarian highly qualified staff to return and to take measures, adopt policies, and start initiatives with regard to this type of migrants;
- The results of the survey show that about 1/4 of respondents consider themselves professionally non-integrated in the host country, and over 1/3 believe that they are unfulfilled professionally. Additionally, a high percentage (about 75%) consider the option of returning to Bulgaria "sometimes" and "very often", while for about 60%, the growing need for specialized staff could be a motive for them to return, including those who would return if they were given an opportunity for professional fulfillment in the homeland;
- The obtained results and the quickly developing industrial landscape of Bulgaria (and more specifically of the city of Sofia and the region) as an investment destination for international companies lead to a pronounced need for the creation of a Cross-disciplinary multi-level educational center for innovative industries in Sofia. On these grounds, it can be stated that this study has proven that if Bulgaria provides opportunities for development for specialized staff by undertaking specific initiatives, and more specifically, by creating a Cross-disciplinary multi-level educational center for innovative industries in Sofia, this could be a reason and a motive for Bulgarian migrants to return.

This article is also the basis for continuous future research on the subject with regard to Bulgarian emigration, including with regard to the attitude toward returning of Bulgarians to their homeland, and also with regard to research on emigration-related psychological determinants (values, motives) in the context of non-economic reasons linked to it.

References

- Angelov, G., M. Lesenski (2017). 10 years in the EU. Migration Trends in Bulgaria. Sofia: Open Society Institute. Retrieved March 24, 2021, from: https://osis.bg/wp-content/uploads/2018/04/MigrationTrendsBulgaria_10YearEU_EuPI_Oct_2017_BG.pdf
- Bakalova, M. & M. Misheva (2018). Explanations of economic rationality challenged: contemporary return migration to Bulgaria. *Economic studies*, 27(2), 80-101.
- Baychinska, K. (1998). The Bulgarian's value system in the conditions of transition to a democratic society. *Fact magazine*, issue 1/1998, 16-27.
- Baychinska, K. & S. Savova (2009). States of national identity and motives for emigration among Bulgarian youths. Sofia: Institute for Population and Human Studies – BAS. *Psychological Studies magazine*, 3/2009, 7-24.

- Bobeva, D. (1994). Emigration from and Emigration to Bulgaria. In: H. Fassmann & R. Munz (eds.) *European Migration in the late Twentieth Century: Historical Patterns, actual trends, and social implications*. Aldershot: Luxemburg.
- Breinbauer, A. (2007). *Brain Drain - Brain Circulation or... What Else Happens or Should Happen to the Brains Some Aspects of Qualified Person Mobility/Migration*, FIW Working Paper, No. 4, FIW - Research Centre International Economics: Vienna.
- Chobanova, R. (2003). *Flows and non-EU Europe–Bulgaria*. Retrieved March 22, 2021, from: <https://core.ac.uk/download/pdf/211616866.pdf>
- Castles, S. (2010). Understanding Global Migration: A Social Transformation Perspective. *Journal of Ethnic and Migration Studies. Theories of Migration and Social Change*, 10(36), 1565-1586.
- Castles S, H. Haas & M. Miller (2013). *The age of migration: International population movements in the modern world*. New York: Palgrave Macmillan.
- European Commission (2015). *The 2015 Ageing Report: Underlying Assumptions and Projection Methodologies for the EU-27 Member States 2007-2060*. Retrieved March 24, 2021, from: https://scholar.google.com/scholar_lookup?title=The+2015+Ageing+Report:+Underlying+Assumptions+and+Projection+Methodologies&publication_year=2014&
- European Migration Network (2018). *Annual Report on Migration and Asylum: 2018*. Retrieved March 26, 2021, from: https://ec.europa.eu/home-affairs/sites/homeaffairs/files/docs/pages/00_arm2018_synthesis_report_final_en.pdf
- European Social Fund (2018). *Bulgaria's Socio-economic development 2007-2017. Defining national priorities for the period 2021-2027*.
- Horvat, V. (2004). Brain Drain: Threat to Successful Transition in: South East Europe? *Southeast European Politics*, 5(1), 76-93.
- Hristova, A., I. Nacheva & B. Andreev (2017). Optimistic and pessimistic attitudes in a social context. Sofia: Institute for Population and Human Studies – BAS. *Psychological Studies magazine*, 20(2), 261-285.
- Krasteva, A. (2014). *From migration to mobility: policies and roads*. Sofia: New Bulgarian University. Ministry of the Economy (2018). *Innovative strategy for intelligent specialization 2014-2020*. Retrieved March 24, 2021, from: https://www.mi.government.bg/files/useruploads/files/innovations/ris3_18.12.2018_bulgarian.pdf
- Littlewood, R. & M. Lipsedge (1989). *Aliens and Alienists: Ethnic Minorities and Psychiatry*. London: Unwin Hyman. In: Tartakovsky, E. & Schwartz, S. H. (2001). Motivation for Emigration, Values, Well-Being, and Identification among Young Russian Jews. *International Journal of Psychology*, 36(2), 88-99.
- Minchev, V. et al. (2012). *Bulgarian emigration: theories, policies, empirical studies*. Sofia: Ikopis.
- Ministry of Education and Science (2019). *Psychological determinants of the attitudes toward emigration and life planning among young people, in the context of demographic challenges in Bulgaria*. Project – Scientific Research Fund. Sofia: Institute for Population and Human Studies – BAS.
- National Statistical Institute (2021). *External migration*. Retrieved March 28, 2021, from: https://infostat.nsi.bg/infostat/pages/reports/result.jsf?x_2=120
- Sretenova, N. (2003). *Scientific mobility and 'brain drain' issues in the context of structural reforms of Research and Development and the Higher Education Sector in Bulgaria*, CSLPE Research Report No 2, University of Leeds: UK.
- Statistisches Bundesamt (2019). *Migration and integration: Foreign population by age groups and selected citizenships. Foreign Population by age group and selected citizenships on 31 December 2018*. Retrieved March 29, 2021, from: <https://www.destatis.de/DE/Themen/Gesellschaft-Umwelt/Bevoelkerung/Migration-Integration/Tabellen/auslaendische-bevoelkerung-geburtsort.html>
- Straubhaar, T. (2000). *International Mobility of High Skilled: Brain Gain, Brain Drain or Brain Exchange*, HWWA Discussion Paper 88.
- Tartakovsky, E. & Schwartz, S. H. (2001). Motivation for Emigration, Values, Well-Being, and Identification among Young Russian Jews. *International Journal of Psychology*, 36(2), 88-99.
- Todorov, I. & A. Durova (2016). *Economic growth of Bulgaria and its determinants*. *Economic studies*, XXV(4), 3-35. Retrieved March 27, 2021, from: <https://ideas.repec.org/a/bas/econst/y2016i4p 3-35.html>
- Vietti, F. & T. Scribner (2013). *Human insecurity: Understanding international migration from a human security perspective*. *Journal on Migration and Human Security*. Independent Researcher, *United States Conference of Catholic Bishops*, 1(1), 17-31.
- Winter-Ebmer, R. (1994). Motivation for migration and economic success. *Journal of Economic Psychology*, 15: 269-284.
- Wolburg, M. (2002). *On Brain Drain, Brain Gain and Brain Exchange within Europe*. Ph.D. Dissertation, HWWA-Hamburg.
- Zareva, I. (2018). *Returning migrants - effects on the labor market in Bulgaria*. *Economic studies*, 27(2), 102-114.

Annex

Questionnaire exploring the options for the return of Bulgarian migrants in response to the growing need for specialized staff in Sofia

Dear respondents,

We are conducting a survey on behalf of the Sofia Investment Agency and the Institute for Population and Human Studies at the Bulgarian Academy of Sciences. The goal is to explore the opportunities for the return of Bulgarian migrants in response to the growing need for specialized staff in Sofia.

Please answer the questions below. The survey is entirely anonymous.

Thank you!

Main block

1. Do you feel professionally integrated in the country where you work?

Yes, completely

More integrated than non-integrated

Neither affiliated nor unincorporated

More non-integrated than integrated

I don't feel involved

Other (please specify)

2. Do you feel professionally realized in the country where you live?

Yes, completely

More realized than unrealized

Neither realized nor unrealized

More unrealized than realized

I don't feel professionally fulfilled

Other (please specify)

3. Do you ever consider returning to Bulgaria?

No, never

Yes, sometimes

Yes, very often

4. Increasing the need for specialized staff in our country can motivate your return?

Yes, definitely

Yes, it could

It may be, but it may not be

No, it couldn't

No, definitely

5. If Bulgaria provides you with an opportunity for realization and development in the field of your professional qualification, would you return to your homeland?

Yes, I would return

I would consider the possibility

It depends on the possibility

I would not return

Demographic block

1. Sex:

Male

Female

Other

2. Age:

18 - 25

26 - 35

36 - 45

46 - 55

56 +

3. Education:

College

Higher education /bachelor, master/

Dr. / PhD

Other (please specify)