

## СОЦИОЛОГИЧЕСКИЕ НАУКИ

УДК 316

### МОЛОДЕЖНАЯ ЭМИГРАЦИЯ И УТЕЧКА МОЗГОВ ИЗ ИРАНА: ПРИЧИНЫ, ТЕНДЕНЦИИ И НАПРАВЛЕНИЯ

© 2020 г.

*М. Афзали*

Мехди Афзали, младший научный сотрудник Института демографических исследований ФНИСЦ РАН,  
Москва  
Mehdiafzali1991@gmail.com

*Статья поступила в редакцию 13.07.2020*

*Статья принята к публикации 31.07.2020*

Обсуждаются ключевые характеристики эмиграции студентов из Ирана как потенциальной утечки мозгов. В этой концепции основными факторами эмиграции студентов и высококвалифицированных специалистов считаются социально-экономические и политические факторы. В этом исследовании использован социологический метод. Проведено 6 углубленных интервью, в которых участвовали иранские предприниматели и студенты, которые эмигрировали и жили во время опроса в четырех странах (Россия, США, Малайзия и Германия). Глубокие интервью проведены на основе руководства, которое включало 15 вопросов с целью выявления причин эмиграции, современных контактов и перспектив социально-экономического сотрудничества с Ираном. Был также проведен опрос иранских студентов, обучающихся в России, чтобы определить перспективы их возвращения на родину, планы жизни и миграционные установки после завершения обучения. Размер выборки составлял 100 человек, или 7% от общей численности иранских студентов в России ( $N = 1398$ , данные за 2017 год). Выборка репрезентативна по полу: опрошено 67 мужчин и 33 женщины. Опрос проводился лично на основе случайного отбора. Анкета включала 35 вопросов. Результаты нашего исследования показывают, что военная служба и дискриминация по признаку пола имеют существенную положительную корреляцию с потенциальной утечкой умов и эмиграцией студентов; надежда на будущее имеет существенную негативную связь с потенциальной утечкой мозгов из Ирана. Однако мы не можем подтвердить связь между безработицей и инфраструктурой с потенциальной утечкой мозгов.

*Ключевые слова:* миграция, эмиграция, иммиграция, утечка умов, студенты, академическая мобильность, развитие, Иран.

#### Introduction

During the past few decades, migration of students and skilled workers from developing countries to the developed countries has increased; OECD countries are the main destination of students, skilled and highly skilled workforces. Now, a great part of international migrants are educated and skilled individuals who have been educated at the cost of home country and have emigrated for either long term or short term; a phenomenon called brain drain. In addition to the skilled and highly skilled immigrants, the other major groups are students who prefer to emigrate. In many countries, especially in developed countries, students are considered as future immigrants with higher education or skills and have an edge over other immigrant groups. In fact, by obtaining a degree and familiarity with the culture and social conditions of the host country, it is predicted that the economic problems and the relevant social issues of these

immigrants will be less and that they consequently bring more benefits to the host country. As a result, many immigrant countries are pursuing a variety of programs with a variety of educational incentives to attract international students.

Immigrants who have a high level of education or skills are among the most important and valuable groups of immigrants, so there is a lot of competition in the international immigration market to attract and retain them. Many immigrant countries, especially developed ones, announce and implement special programs and policies each year to attract and retain these immigrants. In fact, these countries sometimes plan their development programs, especially in the field of innovation and technology, based on these skilled and educated immigrants. On the other hand, migrants' home countries lose a significant percentage of their high skilled individuals and they suffer from irreversible economic and social loss. When we talk about brain drain, skilled and highly skilled individuals

are the main players of this phenomena. The difference between skilled and highly skilled individuals is that the latter have higher education and professional working experience in a specific area, while skilled migrants can be school graduates.

Of course, the results of Brain drain like migration can negatively and positively influence societies. Some argue that brain drain will stimulate and encourage education of other people in the home country [1] because those who are left behind in the home country will understand the benefits of education, and it encourages them to continue their education [2].

### Discussion

In Iran Brain drain has had negative impacts because this process is a fundamental problem. Specialized and educated people leave the country and specialize in the economies of other countries. Historically in 90s, the peak of brain drain from Iran to the United States was recorded that many of Iranian workforce immigrated to the USA, most of whom had tertiary education. Moreover, many Industrialists and academics left the country in 2000 and are not expected to return to Iran. However, the phenomena of brain drain in the last few decades and during the presidency of Mahmoud Ahmadinejad was completely denied by him. In a report by IMF in 2006, Iran ranked 1st among 91 developing nations in terms of brain drain. It was reported that 150,000-180,000 Iranian skilled and educated people are emigrating every year [3].

In addition, this report showed that, more than 400,000 Iranians with higher education are residing in America, more than 50% of whom are physicians and engineers. For example, International Monetary Fund also reported that [4] in 2014, around 120,000 Iranian students were studying in other countries, and it is also believed that over the last two decades many of those students who had won awards in international scientific Olympiads migrated to the developed countries [5]. Therefore, like all other countries of origin, Iran will suffer a lot of socio-economic hardship after the loss of its expert forces because those who remain probably do not have the necessary knowledge and expertise to create change and improve the conditions of society.

Besides, because nurturing students is mostly based on governmental subsidies, the cost of brain drain in this country is even greater; therefore, Iran suffers a huge economic and social loss because of emigration of students, skilled and highly skilled individuals. Since people do not wish to return, government is unable to utilize their knowledge and capabilities and loss of talents has a negative influence on the country. Moreover, the cost of

nurturing a student from school to Ph.D. is around 110 billion Iranian Rials [6], which is almost 600,000\$ dollars<sup>1</sup>. Therefore, if the rate of emigration of students and highly skilled individuals estimated at 150,000–180,000 per year is true, then Iran is losing 90–108 billions of dollars every year due to the emigration of students and brain drain which is much more than the revenue received from selling oil by Iran per year [7] (73,000 barrels of oils sold per day\*365\*43 oil price [8] = \$1,145,735,000 dollars) and it is between 20%–24% of Iran's GDP. However, The Vice President for Science and Technology said: «The total number of highly educated Iranian emigrated is between 32,000 and 40,000 per year» [9]. Which accounts for 24 billion dollars loss. More over economic loss due to the emigration, is at least 42 % of FDI stock in Iran and 7 times more than the FDI inflow to Iran [10].

Moreover, because of the political, social and economic situation, Iran has been unable to attract and enjoy the advantages of the brains and diaspora. Even the experts inside Iran are unemployed or are dissatisfied. In spite of this fact, the quality of education in Iran has stayed high and many Iranian students win in international scientific Olympiad such as robotics, nanotechnology, physics, etc., and the number of their scientific publications in the international journals is increasing. Table 1 shows the number of students studying abroad all around the world as well as the number of Iranian international students during the period between 2013 and 2017 based on the report by UNESCO's Institute for Statistics (UIS).

As clearly shown in Table 1, the number of international students in the world has increased around 1 million in 4 years. Even though the number of Iranian international students has increased from 49,500 in 2013 to 52,500 in 2017, the share of Iranian international students in the world has decreased from 1.1% in 2013 to 0.9% in 2017. Graph 1. presents the main countries of study of students from Iran in 2017.

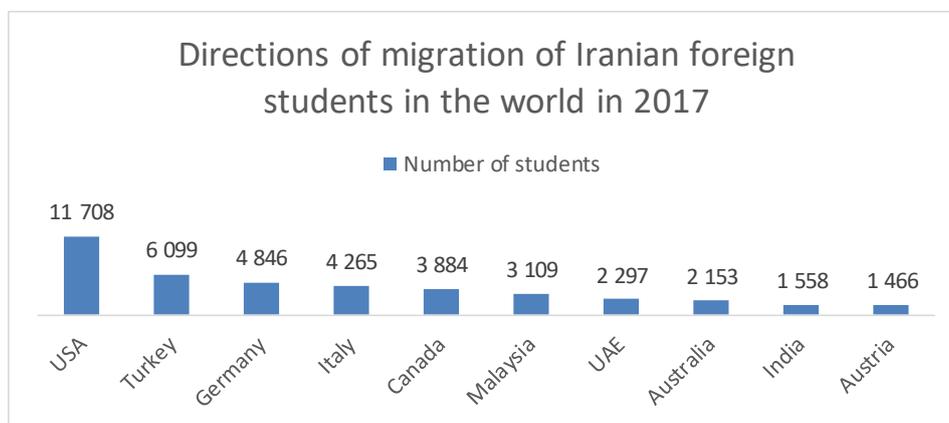
Iran has 52,521 international students which constitutes 1% of the total mobile students, it also hosts more than 21,000 international students which is 0.4% of total students with inbound mobility rate of 0.5%. Outbound mobility ratio of Iran is 1.2%, and Gross outbound enrolment ratio is 0.9%. The graph above illustrates that the top destinations for Iranian International Students are USA (11,708), Turkey (6,009), Germany (4,846), Italy (4,265) and Canada (3,884) followed by Malaysia (3,109), UAE (2,297), Australia (2,153), India (1,558) and Austria (1,466). Table 2 shows the top countries of origin of highly educated migrants living in OECD countries during the 2000/01 and 2010/11 periods.

Table 1

**Number of International students in the world and share of Iranian International Students from 2013–2017**

|                   | 2013      | 2014      | 2015      | 2016      | 2017      |
|-------------------|-----------|-----------|-----------|-----------|-----------|
| <b>Iran</b>       | 49,493    | 50,823    | 51,138    | 52,771    | 52,521    |
| <b>World</b>      | 4,230,955 | 4,495,169 | 4,786,192 | 5,091,894 | 5,309,240 |
| <b>Percentage</b> | 1.1%      | 1.1%      | 1%        | 1%        | 0.9%      |

Source: <http://data.uis.unesco.org/>, UNESCO's Institute for Statistics (UIS)



Graph 1. The main countries of study of students from Iran in 2017, people

Source: UNESCO's Institute for Statistics (UIS): <http://uis.unesco.org/en/uis-student-flow>

Table 2

**Top countries of origin of highly educated migrants living in OECD countries, 2000/01 and 2010/11**

|                    | Highly educated migrants |           |                 |                                    | Emigration rates of the highly educated |         |
|--------------------|--------------------------|-----------|-----------------|------------------------------------|---|---------|
|                    | 2010/11                  | 2000/01   | Rank in 2000/01 | Change between 2000/01 and 2010/11 | 2010/11                                 | 2000/01 |
| India              | 2 238 100                | 1 002 300 | 2               | 123%                               | 3%                                      | 3%      |
| Philippines        | 1 545 200                | 889 100   | 3               | 74%                                | 8%                                      | 7%      |
| China              | 1 530 600                | 822 800   | 5               | 86%                                | 2%                                      | 2%      |
| United Kingdom     | 1 470 600                | 1 082 300 | 1               | 36%                                | 11%                                     | 12%     |
| Germany            | 1 219 500                | 865 400   | 4               | 41%                                | 9%                                      | 7%      |
| Poland             | 999 900                  | 467 200   | 9               | 114%                               | 17%                                     | 12%     |
| Russian Federation | 890 800                  | 624 800   | 6               | 43%                                | 1%                                      | 1%      |
| Mexico             | 885 500                  | 475 000   | 8               | 86%                                | 6%                                      | 6%      |
| Korea              | 809 400                  | 517 100   | 7               | 57%                                | 4%                                      | 4%      |
| Ukraine            | 657 900                  | 372 700   | 13              | 77%                                | 4%                                      | 3%      |
| Iran               | 471 200                  | 289 700   | 15              | 63%                                | 4%                                      | 7%      |

Source: OECD library: connecting with emigrants, a global profile of diasporas 2015,

[https://read.oecd-ilibrary.org/social-issues-migration-health/connecting-with-emigrants\\_9789264239845-en#page29](https://read.oecd-ilibrary.org/social-issues-migration-health/connecting-with-emigrants_9789264239845-en#page29)

Table 2 clearly shows that in 2000/01 Iran ranked 15th for highly educated migrants to the OECD countries which also indicates a 63% change from the years 2000/01 to the years 2010/11. The emigration rates of the highly educated Iranians in 2000/01 was 7% and in 2010/11 it was around 4%. In terms of the number of Iranians, it was around 289,700 persons in 2000/01 and 471,200 persons in 2010/11. United Kingdom, India, Philippines, Germany and China have the first to fifth place in the mentioned years.

Elite migration behavior is a complex and multi-layered issue; it should not be limited to the few reasons. It is natural for the elite to emigrate as long as the people in the society do not have access

to the facilities and resources they need and are not treated well. In other words, the imbalance between facilities and human resources causes the overflow of manpower to the countries that provide them with special facilities. Migration of Iranian elites is due to the issues such as lack of job opportunities and unemployment, lack of financial and spiritual support for skilled workers, low income of professors, elites and faculty members, financial and administrative inadequacies, social discrimination and wage gaps, incompatibility of specialization and income, lack of meritocracy, an old and stagnant educational system, and a lack of security and job satisfaction. A few reasons of emigration from Iran is explained as follow:

1. Emigration of skilled workforce and students from Iran, is related to the high rate of unemployment; the elite in Iran are concerned about their employment. The issue of unemployment in recent years has intensified the process of brain drain from the country. Governments' inability to provide jobs has made it difficult for people to stay and although people may not directly emigrate as labor, they may consider to emigrate to further their education, or they emigrate as an economic migrant [11].

2. Emigration of highly skilled people and students is related to the level of corruption in the country; a major part of Iran's economy is controlled by the government in both overt and covert ways [12], and it has not only caused human capital flight, but also has increased the amount of capital flight. Moreover, since the government is unable to provide jobs they are not tightening the emigration of educated individuals.

3. Unsuitable educational system; by establishing private and semi-public universities in every province in Iran such as Azad University, Payam Nour, Elmi Karbordi, etc. which have lower educational level and easier entrance exam than public universities, there is an oversupply of educated and skilled students in many specialties [13]. Another issue related to those who have graduated from medical universities is that they are unable to have their own offices unless they serve for a period time in regions with lower socio-economic status; therefore, they consider to leave. And even those who had returned to the home country feel that their needs are not satisfied and they become frustrated, because the government cannot provide the appropriate infrastructure, instruments, etc., so they do not consider to stay in Iran [14].

4. The expansion of satellite technology, internet, smartphones, etc. that showed the outside world to the Iranians, and grew the intolerance to the governments' restrictions in general public [15]. Lack of freedom; social, economic and political strains have increased since 1979 and the effects are now visible in the social life of people and at one point led to the protests in 2009.

5. The quality of education in science or engineering in Iran is such that it nurtures relatively good students. Graduates of undergraduate and graduate courses are quickly attracted to Western or Eastern universities, including Europe, Japan and Singapore. However, the University Entrance Exam called Konkur, and a variety of shares given certain groups such as the children of the martyrs of Iran-Iraq war, along with the compulsory military service of 2 years for men have been among of the main reasons of emigration of students from Iran. Many student who fail this examination consider to emigrate in order to escape

military service. And even those who have been admitted to Iranian universities become frustrated of socio-political pressures inside the universities. Repression of freedom of research, expression, and ideas disappoints the students. Even professors and experts do not feel that their work is appreciated; low salaries and unpaid leaves are other reasons of emigration of professors and experts [16].

6. Injustice is another reason of emigration from Iran, in a research study done by Salmani, 2011, the relationship between brain drain and injustice was found to be significant; highly skilled and educated people as elites were more sensitive to injustice in the country and were more likely to emigrate. Moreover, elites reacted to the emotional injustice and believe that the society is not fair in the distribution of financial, physical and social resources, which stimulates their migration [17].

7. Push and pull factors are believed to be the reasons of emigration of students and skilled individual [18]. Human rights violation, lack of infrastructure, issues of freedom, research limits, shortage of resources at the universities, social and political environment and discrimination are the most important push factors. On the other hand, in addition to the problems and repulsive factors in Iran, there are some attractions in the developed countries, such as the existence of suitable job opportunities, favorable economic outlook, the prospect of a secure, predictable and worthy future, hope for future, freedom, equality, job security and pleasant socio-political environment are the most important pull factors for Iranians to emigrate. It is expected that the increase of these attractions in developed countries increase this trend. In a study done by Kazemi A. et al. 2018 [19] on Iranian students in Malaysia, lack of political freedom and hardship were found to be the push factors for Iranian students to emigrate while political suppression was not found to have a significant effect on emigration. Moreover, freedom of speech and religious freedom have a slight effect on emigration of students abroad.

8. Besides individual factors for skilled workers and students, factors related to the job environment are important factors in emigration of Iranians. Work safety, high risk environment [20], job satisfaction, heavy workload [21], pressures from the management, job position and poor working condition [22] are believed to be positive and negative decisive factors for the emigration of the skilled workers. For example, in a study done by Asadi H., et al. 2017, it was shown that Iran's health professionals intended to emigrate due to the discrimination or in search of better life and new experiences [23].

In addition to the mentioned studies, in another study carried out by the author in 2017 about brain

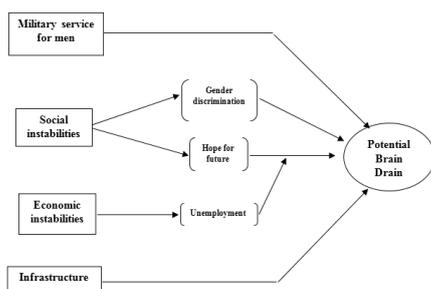


Figure 1. Research framework designed for this study  
Source: designed for this study by the author

drain and emigration of students, due to the nature of the issue under study, a new approach was introduced to provide a more detailed framework to examine different hypotheses in order to find comprehensive results and characteristics of brain drain and students' emigration. In this new approach, military service, infrastructure, economic instabilities, social instabilities, gender discrimination, hope for future, and unemployment are tested. The following simple framework shows how they influence the brain drain.

### Methodology

The sociological method was also used. 6 in-depth interviews were conducted by experts, which were Iranian entrepreneurs and students who had emigrated and lived at the time of the survey in four countries (Russia, the USA, Malaysia and Germany). In-depth interviews were conducted on the basis of a guidebook, which included 15 questions with the aim of identifying the causes of emigration, modern contacts and prospects for socio-economic cooperation with Iran. A survey of Iranian students studying in Russia was also conducted to determine the prospects for their return to their homeland, life plans, and migration attitudes after completion of training. The sample size was 100 people or 7% of the total population of Iranian students in Russia ( $N = 1398$ , 2017 data). The sample is representative by gender: 67 men and 33 women were interviewed. The survey was conducted personally on the basis of random selection. The questionnaire included 35 questions that related to migration history, life and migration plans of students, their employment and adaptation in the Russia, and reasons of emigration. The results of a survey of Iranian students were processed using the SPSS package. Based on statistical methods, the dependence of emigration of various groups of labor migrants from Iran on various socio-economic factors was determined.

### Results

In this study the majority of the respondents were males with a proportion of 67 persons, and

95 of them were single. The data in our questionnaire for the marital status (single, married, widowed, separated and divorced) show that there are no divorced, widowed or separated cases. The age range of the majority of participants constituting 81 percent of them was within 18–24 years which seems to be normal because the students in universities are around this age. The majority were studying dentistry and medical studies, 65 and 21 persons respectively. Moreover, we asked them their average monthly income or allowance they received from their families and it was shown that 66% of them have the average monthly income of 1500\$ and more. In this research, we also asked women's opinion about the military service for men and we also asked men to give their opinions about the gender discrimination. Table 3 shows the mean, standard deviation and correlation of all the variables. The significant level in this study that is at  $<0.05$  level where the highest significant level in this study is 0.004 followed by 0.018. A measure is reliable when the coefficient alpha value is above 0.6; however a cut-off point of 0.7 is more suitable [24] and any other value below this is considered as unsatisfactory and low internal consistency.

The results presented in Table 3 indicate that *military service for men* has a significant positive relation with students' emigration as potential brain drain, the significance level for this hypothesis influencing on brain drain is 0.004 with Cronbach's Alpha = 0.901. The length of military service is unacceptable for people; and they consider it as a waste of time for two years. Moreover gender discrimination has also a significant positive correlation with students' emigration from Iran. Participants in our study believe that gender discrimination in Iran is harsh and mostly women are suffering from it, they believe that gender discrimination has endangered their socio-economic and political rights. The significance level for this hypothesis influencing on brain drain is 0.018 with Cronbach's Alpha = 0.735. However, hope for the future inside Iran has been found out to have significant negative correlation with potential brain or emigration of students from the country our participants believe socio-economic and political uncertainty distorts their belief and decreases the level of their hope for the future. The significance level for this hypothesis influencing on brain drain is 0.039 with Cronbach's Alpha = 0.798. On the other hand, the other two variables in our study unemployment (significance level= 0.605, Cronbach's Alpha = 0.814) and infrastructure (The significance level = 0.228, Cronbach's Alpha = 0.786) are not supported by our analysis. And that is logical since our target sample are students and they had no actual expo-

Table 3

**Mean, standard deviation and correlation of all the variables designed for this study**

| Variables             | Mean   | Standard deviation | Cronbach Alpha | Correlation with potential brain drain |
|-----------------------|--------|--------------------|----------------|--|
| Military service      | 4.4060 | .57592             | 0.901          | Pearson Corr. = .288**<br>Sig.= .004   |
| Gender discrimination | 4.3160 | .38579             | 0.735          | Pearson Corr. = .236*<br>Sig. = .018   |
| Hope for the future   | 4.3440 | .44411             | 0.798          | Pearson Corr. = -.206*<br>Sig.= .039   |
| Unemployment          | 4.1960 | .46186             | 0.814          | Pearson Corr. = -.052<br>Sig. = .605   |
| Infrastructure        | 4.1300 | .48938             | 0.786          | Pearson Corr. = .122<br>Sig.= .228     |
| Potential Brain drain | 4.4500 | .39222             | 0.828          |  |
| Valid N (listwise)    | 100    | 100                |                |  |

Source: SPSS software, results from the survey

sure to reality of the employment issues. And since they have mostly not attended at universities they are not familiar with the existing infrastructures in the universities and they have unclear understanding of the higher education system of Iran.

Moreover, our results from interviews explain that our participants due to socio-economic and political uncertainties and discomforts are not willing to return to Iran. And if they have returned in a specific time before, they again emigrated from Iran and looked for better job opportunities abroad although interviewees believed that if they return to Iran, unemployment will not be a problem, although they are not going to be satisfied with the salary. Our participants have an average salary or scholarships of 2,500 \$ and more from universities or their working place per month. In addition to their financial favor, they feel that their human rights in their current countries are met and they are treated with respect. Our participants do not feel discriminated against and neither do they think that women are discriminated in these societies. Moreover they are able to do their favorite leisure activities and have access to their scientific interests, research laboratories, infrastructures, internet access and instruments. And in general their perception towards Iran is negative and they do not wish to return if the current socio-economic and political situation remains. In addition they believe that political instabilities, suppressions and restrictions are the first factors influencing other factors such as social, economic, etc.

### Conclusion

In Iran, one of the main obstacles that policy makers are facing is the lack of accurate statistics about the number of people who have emigrated or are considering to emigrate. Recognizing and studying the scientific, cultural, economic and political capabilities of Iranians living abroad is a valuable

tool of the foreign policy to ensure and strengthen the national interests of the country. Moreover, lack of reliable statistics has made research difficult for the researchers informing the politicians. In many cases, the information can be misused and misinterpreted for personal and political purposes and there are many instances in the field of migration and the phenomenon of brain drain. For example, in the society people usually argue that Iran has the highest rate of brain drain in the world, which is based on the incorrect and inaccurate information provided and the inaccurate analysis of the information. A major reason is that the information provided by the government regarding migration is usually released through unofficial websites and news agencies. In addition, the information provided is based on what directors of the organizations and politicians desire and there is no official and documented information provided except such personal views. The release of migration statistics in the media has been in a manner that it seems that the media is shaping the taste and mentality of people towards migration.

The positive or negative effects that these Iranian immigrants around the world can have on economic and social environment of the country are important and clear. Very serious considerations are needed in order to attract and motivate them to return or interact with the home country. In recent years, with the plan «Return» more than 1,000 Iranian specialists have returned to Iran, and more than 5,000 of them are interacting with the people inside Iran in the form of seminars, conferences and workshops. However, not only do the internal domestic problems in Iran discourage them, but also, international problems such as sanctions, or US-effected rule that if someone has visited Iran in the last 5 years is unable to visit and enter the United States of America, have made it difficult for Iranian immigrants to be in touch with home country. As for those who have dual citizenship, the

prevailing negative attitudes of the authorities leading to sentencing them to imprisonment, has deteriorated the image of the country and distorted the trust and incentives.

Anyhow, besides the efforts the authorities need to make to keep the highly skilled individuals in the country, they need to consider replacing brain gain with brain exchange. With the technological advancement and expansion of the internet in the world, and in view of all the problems existing in Iran's situation, this seems a more feasible option. The reason is simple: Who would like to return to a country where salaries and the payments inside the country are much lower than destination countries and there are no appropriate working conditions such as job security, fair competition and meritocracy, transparency in payments and appropriate working hours. There are still other issues such as compulsory military service for boys, time-consuming process of confirming university certificates and university recruitment, and lack of a clear mechanism to return to the country. On the other hand, nowadays the physical presence of specialists in countries is not so important as the relevance and usefulness of their knowledge and experience. In this scenario, Iranian experts may be more interested in maintaining interaction, communication and cooperation with Iran if long term physical presence in the country is not mandatory.

In this study factors influencing on students' emigration have been looked up from different perspective. Our results in this study support that military service and gender discrimination have significant positive correlation with potential brain drain and emigration of students; and hope for future has a significant negative relationship with potential brain drain. However, unemployment and infrastructure in this study are not supported and we are unable to confirm the relationship of these factors with potential brain drain. This is due to problems and limitations encountered for this study that first of all is the narrow focus of the area which is students only. This means the findings don't represent all the emigrants and it does not show the view and opinion of other Iranian students from other countries. Moreover the target of the respondents could have been changed, since the respondents were students, their opinion can be different from those who are not. It is better for the future researchers to include wider area in their studies. Future researchers must examine a bigger sample size that can give them more reliable and precise results. And even it is suggested to use more independent variables and factors to analyze the data from different and broader aspects.

### Примечания

1. Governmental Dollar to Iranian Rials is 42,000 and the market price of dollar is 150,000 Rials.

### Список литературы

1. Mountford A. Can a brain drain be good for growth in the source economy? // *Journal of Development Economics*. 1997. Vol. 53. No. 2. P. 287–303.
2. Beine M., Docquier F. and Rapoport H. Brain drain and economic growth: theory and evidence // *Journal of Development Economics*. 2001. Vol. 64. P. 275–89.
3. Karimi N., Gharaati S. Why Do Brains Drain? Brain Drain in Iran's Political Discourse // *Critical Approaches to Discourse Analysis across Disciplines*. Vol. 6 (2). P. 154–173.
4. Hakimzadeh S. (2006). Iran: a vast diaspora abroad and millions of refugees at home. URL: <http://www.migrationinformation.org/feature/display.cfm?ID=424>. (date of access: 05.05.2014).
5. Financial Tribune (2016). Brain drain continues in Iran. [Electronic resource]. Mode of access: <https://financialtribune.com/articles/people/53254/brain-drain-continues>. Accessed 14 April 2017 (date of access: 12.07.2020).
6. <https://www.irna.ir/news/83227467/11-میلیارد-تومان-خسارت-خروج-هر-نخبه-از-کشور>, Costs due to the high skilled emigration
7. Iran News by radio Farda Electronic resource. Mode of access: <https://www.radiofarda.com/a/Irans-oil-exports-dwindle-to-record-low/30614720.html> (date of access: 15.06.2020).
8. Crude oil prices today [Electronic resource]. Mode of access: <https://oilprice.com/> (date of access: 12.07.2020).
9. Highly qualified emigration from Iran, every year 32–40 thousands high skilled Iranians are emigrating from the country [Electronic resource]. Mode of access: <https://snn.ir/fa/news/-ایران-۴۰-هزار-نخبه-از-ایران-سالانه-بین-۳۲-تا-۴۰-هزار-نخبه-از-ایران-مهاجرت-می-کنند>, (date of access: 03.05.2020).
10. World investment report 2019 [Electronic resource]. Mode of access: [https://unctad.org/en/PublicationsLibrary/wir2019\\_en.pdf](https://unctad.org/en/PublicationsLibrary/wir2019_en.pdf) (date of access: 12.07.2020).
11. Iran Daily. Leaving for greener pastures // *Iran Daily*. 2005b. January 22.
12. Thomas J. The dynamics of globalization and the uncertain future of Iran: an examination of Iranians in Dubai // *The Fletcher School Online Journal for Issues Related to Southwest Asia and Islamic Civilization* (Alnakhlah), Tufts University, Medford, MA. 2006.
13. Saidi F. (2006) The metrics of the physician brain drain /Archives of Iranian Medicine [Electronic resource]. Mode of access: [https://www.researchgate.net/publication/6733701\\_The\\_metrics\\_of\\_the\\_physician\\_brain\\_drain/citations](https://www.researchgate.net/publication/6733701_The_metrics_of_the_physician_brain_drain/citations) (date of access: 12.07.2020).
14. Saidi F. (2006) “The metrics of the physician brain drain”, *Archives of Iranian Medicine* [Electronic resource]. Mode of access: [https://www.researchgate.net/publication/6733701\\_The\\_metrics\\_of\\_the\\_physician\\_brain\\_drain/citations](https://www.researchgate.net/publication/6733701_The_metrics_of_the_physician_brain_drain/citations) (date of access: 12.07.2020).

15. Dehghanpisheh B. A one-way ticket // *Newsweek*. 2004. Vol. 143. No. 10 (Atlantic edition).
16. Kamyab S. Flying brains: a challenge facing Iran today // *International Educator*. 2007. Vol. 47, July/August.
17. Davood Salmani Gholamreza Taleghani Ali Taatian, Perception of social justice implication in brain drain management in Iranian educational institutions // *Education, Business and Society: Contemporary Middle Eastern Issues*. 2011. Vol. 4. Iss 1. P. 19–32. Permanent link to this document: <http://dx.doi.org/10.1108/17537981111111247> (date of access: 15.06.2020).
18. Asadi H., Ahmadi B., Nedjat S., Sari A.A., Gorji H.A., & Zalani G.S. Factors affecting intent to immigration among Iranian health workers in 2016 // *Electronic Physician*. 2017. 9 (6). P. 4669–4677.
19. Kazemi A., Baghbanian A., Maymand M.M. et al. Contributing Factors to Migration Growth Among Iranian Students: Drivers of Migration to Malaysia // *J. of Int. Migration & Integration*. 2018. Vol. 19 (3). P. 757–770. <https://doi.org/10.1007/s12134-018-0567-z> (date of access: 15.06.2020).
20. Kizito S., Mukunya D., Nakitende J., Nambasa S., Nampogo A., Kalyesubula R. et al. Career intentions of final year medical students in Uganda after graduating: the burden of brain drain // *BMC Med. Educ*. 2015. 15: 122. doi: 10.1186/s12909-015-0396-0. PMID: 26231749, PMCID: PMC4522140.
21. Solberg I.B., Tómasson K., Aasland O., Tyssen R. The impact of economic factors on migration considerations among Icelandic specialist doctors: a cross-sectional study // *BMC Health Serv Res*. 2013. 13: 524. PMID: 24350577, PMCID: PMC3878398.
22. George G., Atujuna M., Gow J. Migration of South African health workers: the extent to which financial considerations influence internal flows and external movements // *BMC Health Services Research*. 2013. 13(1): 1. doi: 10.1186/1472-6963-13-297.
23. Asadi Heshmatollah & Ahmadi Batoul & Nedjat, Saharnaz & Baba Akbari, Ali & Gorji, Hasan & Salehi Zalani, Gholamhossein. Factors affecting intent to immigration among Iranian health workers in 2016 // *Electronic Physician*. 2017. 9. 4669–4677. 10.19082/4669.
24. Foster T.R. The art and science of the advertising slogan. ADSlogans Unlimited, 2001.

#### YOUTH EMIGRATION AND THE BRAIN DRAIN FROM IRAN: REASONS, TRENDS AND DIRECTIONS

*Mehdi Afzal*

Institute for Demographic Research, FCTAS RAS (Moscow)

In this study, the key characteristics of students' emigration from Iran as potential brain drain are discussed. The main factors of emigration of students and high-skilled individuals are believed to be socio-economic and political factors. In our research, we used the sociological method and conducted six in-depth interviews with Iranian entrepreneurs and students who had emigrated and lived at the time of the survey in four countries (Russia, the USA, Malaysia and Germany). In-depth interviews were conducted on the basis of a guide, which included 15 questions with the aim of identifying the causes of emigration, current contacts and prospects for socio-economic cooperation with Iran. A survey of Iranian students studying in Russia was also conducted to determine the prospects for their return to their homeland, life plans, and migration attitudes after completion of studies. The sample size was 100 persons or 7% of the total population of Iranian students in Russia ( $N = 1398$ , 2017 data). The sample is representative in terms of gender: 67 men and 33 women were interviewed. The survey was conducted personally on the basis of random selection. The questionnaire included 35 questions. The findings of our study show that military service and gender discrimination have significant positive correlation with potential brain drain and emigration of students; and hope for future has a significant negative relationship with potential brain drain from Iran. However, we are unable to confirm the relationship between unemployment and infrastructure with potential brain drain.

*Keywords:* migration, emigration, immigration, brain drain, students, academic mobility, development, Iran.