

## Factors driving Iranian graduates to immigrate to other countries

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**Abstract:** This paper aims to examine the factors associated with the move abroad of university graduates. The survey is using a descriptive approach to help the researchers better know current circumstances, enabling graduates to make more informed decisions. What the study found was the most common factors associated with emigration of university graduates were political and economic rights, financial security, health care and welfare, higher education and research, at the macro level; lack of outlets for graduates to apply their research training, low pay and lack of security in the jobs they do land (whether inside or outside their fields), and cultural difficulties. Conversely, the factors that attract potential immigrants to a new home land include better income and more opportunities to apply their education and training and to continue their graduate studies – as well as to explore their spiritual or religious lives without fear; in general, it was found, graduates sought a higher standard of living, more of a chance to strengthen and use their training and a greater sense of freedom, at the micro level.

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### 1. Introduction

The past history of developing societies shows that human capital plays a central role in bringing along the economy and technology to help those societies evolve. But that capital is developed at a cost. Nations both developed and otherwise have understood this need through the ages. But the problem that many countries, (including Iran, the fact must be faced), is that when it is the time comes for them to make that investment in their workers, to reduce the deep technological gap between themselves and developed countries and increase the process of the development of the country as a dynamic flow, they find much of their human resources fleeing across the border to the more developed world.

After the 1978 revolution, many Iranians emigrated. Official statistics show that 92% of young Iranians who went to the Olympics (90 out of 125), as well as a significant portion of the country's gifted youth (such as winners of the Kharazmi festival or other student competitions) have been sought by foreign universities. Carrington and Detragiache (Carrington William J., 1998), in a comparative study about the "brain drain" among several countries, found this exodus most notable from Iran among Asian countries, followed by Korea, the Philippines and Taiwan. The findings from this comparison study of skilled emigrant workers from different countries show that in 1999, Iran was among the top 10 countries. Also statistics showed that an average of three people out of every 18 people receiving

bursaries to study in developed countries have been returned to Iran upon graduation.

#### 1.1. Statement of Problem

Immigration refers to the movement of people from one geographical area to another, whereas an "emigrant" is one who changes his or her way of life during this migration. For our purposes, immigration is one characteristic of what is called the "brain drain" phenomenon. The concentration of scientific and research on human potential in specific places will broaden gap between developed and developing countries. Economic development in so-called backward countries will remain in recession, as the more creative and fertile minds in advancing countries will attract other residents to those countries. We will face these negative factors when a dearth of qualified scientists and professional's sets in, and creative minds are lacking to propose new ideas.

According to statistics, demand for migration in past years has increased dramatically and professionals with university degrees (B.As, M.As and P.H.Ds) apply to emigrate, while Iran needs these human resources for economic and industrial development. One symptom of the "brain drain" shows itself when educated people and professionals cannot find jobs in their field of specialization and therefore have to leave.

Several approaches have been used to study the attitude and knowledge direction, as well as the management of immigration of professionals. The first approach is called "The Modern World- System Theory". In this model, Wallerstein defines historical

capitalism as one having capital accumulation as its final economic goal, which goes toward the cultural exchanges between countries around the world (Ritzer, 1996). Yet these economical transactions are not equal; as the result of economic exchanges, large net capital flows from countries around the centre and the process of brain drain is, in fact, can be considered as part of the overall process of capital accumulation of countries around the centre. In New World System Theory, differences in economic development in surrounding countries will lead to international migration.

#### **1.1.1. Marxism Theory**

This theory puts forth that workers can produce change in their social status (Ritzer, 1996). When professionals are aware of their situation (social, political, economic) in society as well as their society's status compared to other communities, and feels that perhaps they are not in their real desired situations; they intend to change their situation, changes that may include migration. To improve their position (including improved academic achievement situations), professionals may migrate to another country. Throughout this transformation, the country of origin may move scientifically, and economically backward, whereas workers' destination country may make developmental progress, and help that country's economy as well.

#### **2.1.1. Rational Choice Marxism Theory or Game Theory**

This model believes that people are decent and are looking for maximum benefit and influenced by structural requirements because they make reasonable choices based on their actions. In this model, there is a correlation between our decisions and actions. People have goals, beliefs, and emotions that lead them to act the way they do (Ritzer, 1996). Professionals emigrate to gain benefits and achieve the goals such as a high level of knowledge and freedom to pursue those goals, because when professionals have decided to progress, naturally, they migrate to where that progress can be achieved.

#### **3.1.1. Giddens Structuration Theory**

In this view, perpetrators are conscious beings, and are treated as such, as their actions reproduce structures that affect them (Ritzer, 1996). This migration model is considered the result of people interacting with social structures that are in place. The social structures help them to act and the individuals who are motivated also enjoy simulative interaction. Professionals create a society capable of change if their world is not capable of change; they believe they must leave the country if that society does not accommodate this need for change. Once they are motivated to achieve progress and better opportunities, people will emigrate. And in this

theory; interaction with the structure of relationships is close. Migration is influenced by social structure, which also forms the structure of society (or causes a change), i.e., cause and effect are intertwined but it cannot be said which one has a stronger effect.

#### **4.1.1. Habermas Theory of Public Sphere**

The public sphere is an area in social life where people can get together and freely discuss and identify societal problems, and through that discussion influence political action (Ritzer, 1996). It is "a discursive space in which individuals and groups congregate to discuss matters of mutual interest and, where possible, to reach a common judgment." The public sphere can be seen as "a theater in modern societies in which political participation is enacted through the medium of talk" and "a realm of social life in which public opinion can be formed" The basic belief in public sphere theory is that political action is steered by the public sphere, and that the only legitimate governments are those that listen to the public sphere. "Democratic governance rests on creating opportunities for citizens to engage in enlightened debate". Much of the debate over the public sphere involves what is the basic theoretical structure of the public sphere, how information is deliberated in the public sphere, and what influence the public sphere has over society.

#### **5.1.1. Parsons' Theory of Structural Functionalism**

This theory puts forth the idea that migration results from a community's lack of adaptability. When behavior cannot adapt to global change, professionals (due to their need to adjust, something at odds with the system) are compelled to emigrate (Ritzer, 1996). Studies by specialists such as Carrington and Detragiache (Carrington William J., 1998) revealed the following: "To their investigation, more experimental study is needed to examine the effects of a brain drain on the economy of countries of origin and the welfare of the whole world, so, evaluating the causes of this problem should be clear. In relation to a brain drain, immigration policies of OECD countries should be studied as to whether their efforts at attracting university graduates are effective" (Carrington William J., 1998).

Also, Paul Gottlieb (Gottlieb, 2004) in a study of urban areas with large number of U.S. residents aged 25-34 between 1990 and 2000, discovered that growth rates in this age group in that decade correlated exactly with employment development in these urban areas. Young workers mostly moved to cities with better facilities and human resources during that decade, more so than their older counterparts (35-64) (Gottlieb, 2004).

Richard Adams (Adams, 2003), tried to diagnose the range of migration among educated

people particularly in the top 24 worker exporting countries and stated: "Immigration has been increasing in developing countries and most immigrants were university graduates from developing countries. This phenomenon causes as well as the neighborhood of the countries of origin and the destination and the geographic population, especially educated population" (Adams, 2003). Stark (Stark, 2002) stated that the important reasons developing countries suffer from the lack of human resources is that the growth of human resources is less than the losses caused by immigration. Kuhn and McAusland (McAusland, 2009) comment in their article, which examines the issue of brain drain. They also proved that "Skilled immigrants have driven improvement in the design products which will then be consumed by the nations that gave birth to those immigrants (McAusland, 2009). The United Nations Development Program reports (Junjian Yi, 2009) reviews the information of a team in China gathered between 1980 and 2005. First, a fixed effects model was used to monitor the migration of faculty members from the countries of origin. A larger number (measured by the ratio of permanent immigrants) led to improved academic members' performance. Second, the methods used migration tool variables on economic growth within the public variable tools method system method (GMM) to estimate the effects of immigration on economic growth. The results of this study conclude that too much immigration caused harmful effects on the economic growth of their country of origin, our experimental evidence created some new documentation on the "brain drain" debate that recently received increasing attention (Junjian Yi, 2009).

Entezarkheir (Entezarkheir, 2005), in the study of immigration and brain drain factors among Iranians who immigrated to Canada during 2000, included the number of variable factors that cover the graduates and non-graduates (skilled immigrants and non-skilled): Iranian national income, number of students, the number of newspapers and scientific journals, the changes in the government system and war, Canadian unemployment rate in 1970 and 2000, economic sanctions, and speculation which tries to conceal factors surrounding brain drain and immigration. She suggested the role of migration from Iran as a cause of economic recession as well as the growth of in comparison with Canada as a destination (Entezarkheir, 2005). Major consequences of increased migration among educated people included a reduction in scientific and research output, reduced economic development, lack of attention to social and housing problems, reducing the quality of domestic products and other such

factors. Therefore, we can say that the brain drain -- which is somehow is the cause of lack of economic development and research facilities in a single society is itself a cause for the slow progress of social development in the same community, thus creating a cause-and-effect and a so-called vicious circle. For example, Giannoccolo (Giannoccolo, 2005) noted that the brain drain acts in two directions. Therefore, developing countries should also attract foreign scientists to compete with nations like the United States. The key strategies and mechanisms are to create clear and flexible academic systems, improving the settlement conditions in immigration, the use of signs and better updates and information in urban level and markets, particularly supply cassette tax for researchers, faculty scholars' pro bono, active international marketing and support international researchers. The influence of these policies, available in Europe by reversing the brain drain direction and attracting scholars would bring about greater talent being provided to Europe and the United States (Giannoccolo, 2005). Leaving one's country behind sounds an alarm for authorities, not only because the country's brain drain with skilled manpower produces bottlenecks, but also makes Iran more dependent on other countries every day, while the aim of the Islamic Republic has been greater independence and autonomy; the issue has necessitated research projects like this.

The aim of this research is to measure factors influencing university graduates emigrate from Iran, and to determine the role of cultural factors, political, economic, higher education and research and social (economic security, health care and welfare) in what motivates this migration. Our goal is to find out what factors most spurred this emigration; from the faculty members' point of view According to the presented material about emigration in university-educated Iranians and the outcome, the problem can be looked at as a social problem and not be from the standpoint that graduate immigration causes lack of economic development or research facilities, will also cause slow social progress in the same community

## 2. Material and Methods

The study uses a form of practical, cross-sectional investigation, employing open-ended questionnaires to gather data.

### 1.2. Sampling:

In this study, we used stratified random sampling and selection. University scientific departments have been selected and among those departments the faculty members have been randomly selected.

### 2.2. Statistical Population

In total number of 1036 faculty members at the University of Tabriz and the Azad Islamic university

of Tabriz were surveyed. The sample obtained from the Cochran method was 218 people. In this formula, N represents population statistics, n is sample population and d represents accuracy of probability.

$$n = \frac{nt^2s^2}{Nd^2 + t^2s^2}$$

(Formula 1 - Formula Cochran)

Where  $t = 1.96$  and  $s^2 = 0/22$  and  $d = 0.05$ .

### 3.2. Data collection methods

Questionnaires were used for gathering information for research data.

### 4.2. Data analysis methods

Data analysis was performed using SPSS software 11.5 version. the calculated scattering parameters central was used to describe the qualitative characteristics and to calculate the percent frequency of direction described quantitative traits.

### 5.2. Factors validity and reliability

Based on the information obtained, Cronbach's alpha reliability coefficient to social factors is 0.747, whereas political factors equals 0.701, cultural factors represents 0.765, educational factors 0.829, and other factors are represented by 0.755. All these coefficients, as you can see, are greater than 0.6, and so, the questions about their impact on graduate emigration from Iran can be considered more reliably in this research.

## 3. Results

A - Descriptive findings: In this section, the frequency distribution of variable dispersion from the University of Tabriz, Tabriz is reported,

A -1) distribution of study subjects, based on gender, total sample, 215 people: According to the results observed in the sample, 37 women were surveyed (or 17 percent), compared to 177 men (or 82 percent).

### 1.3. Factor Analysis

Table 1 shows us that KMO – showing sample size for factor analysis -- is equal to 0.68. So, because that number is closer between 0 and 1, the analysis was shown to be suitable. What is more, it has been proven that numbers closer to 1.0 were more reliable than those closer to zero, with a necessary minimum of 0.5. Based on the following table, the numbers from the Bartlett are significant, which shows that meaning aspects of the separation factor (as in the Bartlett test) has been properly classified, and therefore, both factors are valid.

According to the table with the rotation factor, educational/research factors are given a designation of 0.803, economic factors, 0.786, politics, 0.733. Other factors included operating welfare/health, assigned a value of 0.834, and economic security, 0.715. Thirty-three questions were removed from the

original list of 77, and factors pertaining to social welfare were divided according to economic health and security concerns.

**Table 1:** Kmo and Bartlett's test for determining the validity factor analysis

Kaiser-Meyer-Olkinmeasure	0.681
Bartlett's test of	137.127
Df	10
Sig	0.000

**Table 2:** Factor analysis with rotation

Component		Factors
1	2	
0.803	0.062	educational-Research factors
0.786	-0.155	economic factors
0.733	-0.182	political factors
0.052	0.834	Operating welfare - health
0.254	0.715	factor of economic security

The following test question was worded thus: from a faculty member's perspective, how relevant are the following factors – political, educational, economic welfare and security – in determining whether graduates tend to emigrate?

**Table 3:** Friedman test

Mean Rank	Factors
3.48	educational-Research factors
2.25	political factors
3.11	Economic factors
1.55	Operating welfare - health
4.62	factor of economic security

**Table 4:** Chi Square

N	215
Chi Square	479.609
Asymp. Sig.	0.000

Evaluation of factors in terms of the degree of influence: Results from Table 5 that there is a normal distribution of all the factors because of their significant level is greater than 0.05. This shows that normal distribution for all factors in the population are identical.

**Table 5:** Kolmogorov-Smirnov One-sample Test

		Welfare – Health Care	Political	Economic	Educational-Research	financial security
Normal Parameters (a,b)	Mean	57.3289	42.7339	49.2300	32.4252	77.5814
	Std. Deviation	16.84554	7.72472	11.24728	16.79990	18.35217
Most Extreme Differences	Absolute	0.078	0.076	0.079	0.070	0.162
	Positive	0.037	0.045	0.079	0.070	0.111
	Negative	-0.078	-0.076	-0.069	-0.044	-0.163
Kolmogorov-Smirnov Z		1.143	1.114	1.154	1.023	2.371
Asymp. Sig. (2-tailed)		0.146	0.167	0.139	0.246	0.452

## 2.3. Frequency Distribution Repulsion Factors

Based on the available data, 61 attractive factors were mentioned by faculty members, as well as 96 repulsing factors, which worked out to be 0.70 points for each faculty member. Among the repulsing factors (that is, causing graduates to leave the country), lack of research facilities topped the list, at 14.4%, inability to find work in a related field ranking next at 13.5%. In third place were financial and economic problems at 11.6%, with low income ranking fourth at 10.2%. The fifth-place factor proved to be lack of job security (8.8%), with economic and political factors ranking sixth at 7.4%. Unemployment was next at 7%.

Higher income was the highest-ranking attraction factor (among those keeping graduates within the country) at 13%. Finding jobs within one's related field was next at 12.6%, followed by higher standard of living at 12.1%, availability of postgraduate education fourth at 10.7%. Next ranked achievements in research at 8.8%, freedom sixth at 8.4%, and the ability in general to carve out a better life, at 7.9%.

### 3.3. Results related to factors outside the university graduates

In this section, the results of statistical tests, spawned by secondary research questions, are presented. The Friedman test was conducted to evaluate the degree of influence of each of the factors (political, welfare/health, economic, educational) determining emigration. The research results show 4.62, 3.48, 3.11, 2.52, 1.55 as degrees of influence for mean economic security, welfare – health, economic, political, and educational, respectively. Based on information obtained in accordance with the above named criteria, there are significant differences (in terms of factors influencing migrating graduates). Although in different faculty members' views, some factors have been of minimal impact.

The results revealed that all of these factors are strongly correlated with emigration; however, some of these factors have a significant impact on emigration, while some only have a minimal impact.

### 4.3. Political Factors

The goal of communication is to achieve satisfactory relationship with others. Free speech is one of the important components of communicative action. Habermas (Ritzer, Modern Sociological Theory, 1996) also emphasizes on communication and focuses on the social structures that distort communication. Habermas' political goal is a society in which there is no distortion of communication, so these obstacles must be removed, for the immediate objectives to be achieved. It is in this discussion that Habermas' fundamental theories are brought to bear.

Habermas' theory should be isolated based on a safe environment being provided for discussion by all people.

### 5.3. Welfare and Health Care Factors

According to the theory of structural functionalism it can be said that when in a community, existing structures are able to work in the right way, then, in society, balance and satisfaction are established to create and sustain prosperity. Based on structured theories, it can be said that people are interacting with social structures. And in this interaction, people will be affected by these structures. If those structures cannot satisfy people's need, then, this kind of interaction is adversely affected. According to the game theory, "activists are reasonable creatures, looking to maximize their benefits. Based on analysis by Roemer and Elster (Ritzer, 1996) all social phenomena; their structure and how it changes primarily have to be explained through ways that are people-related, such as assets, goals, believes. Castles and Loughna in their study, discussed factors affecting human development in areas where life expectancy is low and conditions are more adverse (Stephen Castles, 2003).

### 6.3. Economic Factors

Based on structuration theory (Ritzer, 1996), it can be said that humans interact within current society structures to satisfy their needs, economic needs being among them. Social systems are discussed (economy, especially retail) both to serve as a social index and to measure the consequences of how people act. Based on Game Theory (Ritzer, 1996), activists (work in) structural blocks which are affected by structures, so it can be said that one of the structural requirements is a sound economy. Also, according to Marx's theory, it can be said that the economic factors and human productivity affect the relationship between individuals and their society. Michel Beine and his colleagues believed that the south – north flow of specialists' migration, is mainly caused by economic motivation (Rapoport, 2002). Entezarkheir acknowledges that the unemployment rate of Canada is one of the factors behind Iranian emigration to Canada (Entezarkheir, 2005). De La Croix and Docquier (David Dela Croix, 2010), in the study about brain drain, state that less poverty leads to less of a brain drain, whereas more poverty leads to a greater brain drain. In 22 developing countries, poverty and brain drain have been aggravated by negligence and failure to solve the problem adequately. In other 25 countries, visitors will believe the background of bad economic decisions will affect job performance. These results strongly determine of

the assumptions surrounding the mechanisms of brain drain (David Dela Croix, 2010).

### 7.3. Higher Education and Research Factors

According to the theory of structural functionalism, a social system (community) should sufficiently satisfy the basic needs of those living in it in order that they work correctly. When the needs of society are not answered correctly, social structures are dysfunctional or they are not able to answer people's needs. Structuration theory also says factors and structures are not inherently dual but they are two characteristics that are driven differently. Structures always have been both enabling and persuasive (Ritzer, 1996). So it can be said that educational agents will also enable them to do research and study in the fields of science. In Castles and Loughn's research, a high literacy rate affects this phenomenon (Stephen Castles, 2003). Entezarkheir knows the number of university students is an important factor in the emigration of educated people to Canada (Entezarkheir, 2005). Fitzhugh Mullan's study (Mullan, 2005) reviews the brain drain of doctors. Information about countries of origin is related to the countries with medical education and such as U.S.A., Great Britain, Canada and Australia.

### 8.3. Factors of Economic Security

According to Wallersteins' modern world-system theory (Ritzer, 1996) and the theory of functionalism when the needs of professionals can be satisfied within the society in which they live, those individuals tend not to leave that society.

According to Marx's theory (Ritzer, 1996), the immigration of professional took place because the professionals were looking for their right place in the system, but did not find those positions in the countries of their origin. In other words, sometimes individuals consider the lack of economic security due to the failure of their rightful place in that society or not taking place in their rightful position. Based on Game theory (Ritzer, 1996), individuals are looking for maximum benefit. Based on this theory, "there is a tie between the individuals' decisions and their acts. Such an inference can be concluded that economic security has an effect on workers' decisions and those decisions affect their actions.

Castles and Loughna (Stephen Castles, 2003) in their study expressed that immigrants have economic objectives and they are exploited from the process of gaining asylum in their new countries. This study says that, rather than economic factors, other factors such as low per capita income, affect this phenomenon" (Stephen Castles, 2003). Stark in his study knows that frustration is caused by migration to places where these emigrants are not accommodated socially or economically. Developed countries

benefit from the immigration of educated people, with increased prosperity. Stark stated that migrants should be accepted on this basis (Stark, 2002).

### 4. Proposed solutions

In this section, we propose solutions which focus on both the research and practical aspect of this issue.

#### 1.4. Proposed solution for practical aspects

Governments ought to create a safe and stress-free environment for professionals. In all the large cities, research institutes shall be established that help professionals and researchers work in their field. Governments also shall provide more facilities to professionals and support researchers. Solving the economic problems and providing welfare and financial support to professionals and improving their financial situation and standard of living, their financial security and indexing their salary to account for inflation in either Euro or Dollar currency. The state should also pay attention to hospitals, especially those in cities and towns to make them more modern and efficient. Respect to civil liberties and providing a safe environment which has been addressed in the country's constitution. Society should respect all opinions and allow people to participate in political arguments without worry about the consequences. It should provide more education and research facilities to the universities. Society should pay attention to the main obstacles to attracting professionals in key position of the country and, the full coordination of all relevant institutions in this field.

#### 2.4. Proposed solution for research aspect

Research activities should not be only theoretical but also practical; more concentrate should focus on the realities that pave the way for migration of university graduates, and identify more of these factors to be addressed to solve this problem in society. And through these efforts, educated people should be kept from migrating (not to force them but to encourage them to stay).

In practice, the problem of migration of university graduates is sometimes a double-edged sword; given its negative and positive consequences, researchers need to study the positive aspects of the brain drain and how to use these positive aspects toward solving scientific-research problems in order to be able to exploit the capabilities of this large scientific society outside of the country.

### 5. Limitations

In this study, we were faced with obstacles and limitations, among them:

- Lack of access to accurate statistics of the elite's leaving from Iran (in urban and rural centers) in the Centre of Statistics and various Internet sites.

- Lack of the cooperation of Tabriz university officials to give permission to distribute the questionnaire.

The disassociation of university officials regarding the political view of this research.

## 6. Conclusion

Based on theories used in this investigation and the obtained results, it can be concluded that:

University graduates are forced to migrate by political, economic, and educational factors - Research, Welfare – health, economic safety. These factors, which themselves influence migration, during the long years will continue to be influenced by the emigration of these professionals to other counties.

We face interaction in all levels of society. But this does not affect everyone in the same way and it may differ during the years; for example in a period; the migration intensity and acuity leave much to be done, and in another period, migration may tail off, that its listed as the important factors -- for example, in times of war or closed political environment in a country; lack of civil liberties, non-compliance with human rights codes, economic crises, high unemployment rates and many others, migration takes place with greater intensity while during economic prosperity, low inflation, economic and political space for political activists, high hope for the future existence of human rights above civil liberties, respect for human freedoms, job security, putting the value of knowledge from those rulers and country officials, filling positions with right professionals, providing more research facilities to professionals and researchers decrease this migration.

Over time, migration will cause the country of origin to shed portions of their populations - and this will restart the circle of migration, and the country of origin will remain backward from the development process over time. But, day-by-day problems will be much harder to deal with.

So we can conclude that such a society requires professionals to progress, and professionals require an open environment, peace and freedom to participate in effort for research and development. And this is due to the fact that growth of knowledge is a result of freedom. The progress in science is attained in a society where literally the science is neither dependent on the politics nor on ideology. In fact, entering politics and ideology into the science world will disrupt science progress and cause it to stop. In other words, science and research activities are specialized fields and the people outside of this domain sometimes are not aware of these circumstances, and often shine a political lens where the result is nothing but backwardness in science progress.

Also, based on the theories used in this research, one of the effective factors in immigration is the immigrants' motivation for progress where this motivation will be stimulated in future professionals and causes them to leave the land, too. Immigration and leaving your land cause cultural backwardness both in community and among people in their community compared to other countries.

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