

A Survey on the Immigration of Iranian Experts and the Elite: Reasons, Losses and Possible Solutions

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Abstract

In this paper, we are going to give a personally-experienced survey on why Iranian experts and the elite immigrate, mostly, to the western countries in the last decade or so, what the costs due to this outflow are, and what can be done to reduce their immigration ratio. We will talk about the reasons Iranian youth, among them university graduates in particular, have to make the decision to emigrate from Iran. The reasons will be categorized into Economic, Social, Educational, and Cultural/Religious groups. We will discuss the rate of emigrants from Iran as well and will compare it to two of Iran's neighboring countries: Turkey and Pakistan. The cost to the country due to experts' immigration will also be addressed in economic, educational and social categories. Then, the possible solutions to reduce the immigration rate of Iranian experts will be covered by the acting role of the government, educational institutes and the society. In the rest we will have short discussion on how to attracting abroad Iranians, the current reality in Iran and outside it, and the tradeoff between staying in Iran and leaving. The author provides the discussions and results based on his own personal experiences and findings during his study and life in Canada and also information provided by his friends, relatives and colleagues.

1. Introduction

The term "immigration" is defined² as: "entrance of a person (an alien) into a new country for the purpose of establishing permanent residence. Motives for immigration, like those for migration generally, are often economic, although religious or political factors

may be very important." There have been, especially recently, large number of Iranians leaving Iran and immigrating to other countries, mostly the western world. Looking at the number of Iranian students, scholars and professors in American and Canadian universities³, and also high-tech companies in North America for example, one can easily find out that there are enormous numbers of Iranian educated professionals, most of which have spent their lower education years inside Iran mostly in top Iranian universities. Obviously, there are certain motives encouraging Iranian immigrants, mostly youth, to do so. Among them, economic, social, educational and cultural/religious reasons are considerable. Iranian youth, mostly high educated people and university graduates, emigrate from Iran due to many fundamental problems they face with living in Iran. On the other hand, there are numerous, and in the most of the cases serious, losses to the country due to the immigration of Iranian experts and the elite. Economic, educational and social costs are among the most serious ones. Iran's investment on educating many talented intellectuals becomes wasted when those brilliant experts decide to immigrate to other countries, who won't usually contribute to Iranian economy directly at least in the upcoming years of their leave. In fact, Iran's investments on nurturing educated professionals *pay back* to the other countries. This is like the case when a farmer cultivates a plant and someone else profits from the plant instead. So the immigration problem is a critical question in the Iranian society to be answered and to be dealt with. One can think of different actors in the society to face this problem by making plans and applying them, such as the government, educational institutions, and the society. Each of these actors can play different roles to somehow reduce the effect to

¹ The author's biography can be found in the last page of the paper.

² In <http://www.encyclopedia.com>

³ This can be easily done, for instance, by browsing the North American universities' web sites. For instance, see here:

<http://www.cst.uwaterloo.ca/people.html> (The web site is designed by this paper's author.)

fundamental reasons, which basically encourage people to immigrate. They can provide means in the country to reduce the rate of the outflowing immigrants. Indeed, there should be some economic, social, educational and cultural/religious conveniences in Iran, for experts and the elite, to prevent them from departing their home country. Many researchers, sources and domestic or international agencies have published similar reports investigating the reasons why experts and the elite, from different countries and especially Iran, are willing to leave their homeland and settle down, work and live in a foreign country. Similar publications have discussed the possible solutions to reduce the immigration rate of experts. However, to the knowledge of the author, most of the works have been done by domestic agencies and researchers, and among them, few studies have been reported by those who have directly experienced the need for immigration, have undergone the immigration process and have gone through the results afterwards.

This paper is structured as follows. We will try to answer these questions: “Why experts emigrate from Iran?” and “What are the motives?” in Section 2. We will extensively discuss the motives stimulating Iranian professionals to leave their homeland, grouped in these categories: economic reasons, social, educational and cultural/religious. Our discussions will include numerous statistical analyses in the subject matter. The rate of immigrants from Iran will also be evaluated in this section. Section 3 will investigate the losses of the country due to experts’ immigration. We will see how the immigration of Iranian intellectuals in the last decade or so has inflicted very critical damages to the Iranian economy, business, education and, more seriously, to Iran’s future and development. The costs will be categorized in three classes: economic, educational and social. Some possible solutions to reduce Iranians’ immigration rate, which are in fact losses to Iran, will be given in Section 4. We will identify three actors which can play roles to realize the solutions. The factors, which can make a difference in this issue, are: the government, educational institutions, and the Iranian society. In Section 5, we will talk about how to attract abroad Iranians. If Iran was not once able to *prevent* immigrants from leaving Iran, now it can encourage them to *come back*. We will discuss about required preparations, needed to be done by the Iranian government and the society, to attract and host Iranians who have left Iran to immigrate to western countries and have lived there for a while. Section 6 will give a short view on the current reality of life, in general, in Iran and outside it. In sequel, the tradeoff between staying in and leaving Iran will be briefly given. We will see a

few points of different aspects of life in Iran and western countries, and how Iranians live in those countries. Finally, Section 7 will conclude this paper. It should also be mentioned that this study is just a small window on the issue of Iranians immigration. It is based on personal experiences and is augmented by statistical data, mostly from the Internet. Further works on the different issues, identified in this paper, should be done in other related disciplines such as sociology, economics, education, politics, and religions studies.

2. Why Experts Immigrate?

Many researchers, sources and agencies have published articles investigating the reasons why Iranian experts and the elite are willing to immigrate. Many reasons play role when a young expert decides to immigrate. Many young Iranian are getting to know more about western world these days through different media, such as TV, Internet, movies, newspaper, and relatives or friends who are currently living abroad. Depending on the person and his/her circumstances, this understanding from the life outside Iran may encourage the person to immigrate to another country. We categorize those reasons into four groups: (1) Economic, (2) Social, (3) Educational and (4) Cultural/Religious reasons. In the following sections, we will discuss the different reasons why a person, a university graduate in particular, decides to leave Iran and immigrate to a foreign country, mostly western countries. We will also analyze the rate of immigrants from Iran in the recent years and will compare it to those of some neighboring countries such as Turkey and Pakistan. The author also takes into consideration the priority of the motives based on the cases he has known.

Economic Reasons for Immigration

It seems that this is the primary reason for many of the current Iranian immigrant leaving the country in these years. The author has had numerous contacts with different people both inside and outside Iran and has heard their rationales about leaving or staying in Iran. Intellectuals decide to immigrate out of Iran with economic basis mostly because of the following two categories:

1. **Low Income in Iran:** Generally, the level of income for a highly educated intellectual inside Iran neither affords a comfortable lifestyle nor is comparable to the incomes in the western countries; however exceptional cases may exist. In Appendix A, we have compiled a simple and

typical analysis of the economic problems, which act as a motive for experts' immigration. Income for a typical software engineer in Iran is compared to the one outside Iran, for instance, in Canada and the United States. The data are gathered from trusted Internet sources, the personal experience and also the understandings, received from colleagues, friends, relatives and media. The typical comparison is done on the amount of annual salaries for the "Software Engineering" position in Iran, Canada and the US. By looking at the annual salary values, one can see that the base salary for a software engineer in Canada and the US are roughly five and six times of that in Iran. As a realistic example, an extremely talented anonymous Iranian university-graduate, who was from a middle-class family, was describing his reason, to leave Iran to go and continue his graduate study in the United States, as: *"Under the current economic situations in Iran, it is almost impossible for me to afford to buy an average home or even a car in Iran after I graduate and work for many years. I would prefer being away from my family, friends and relatives to go to exile and to study and then work and save money. Hopefully by middle age, I will be able to save enough money to buy an average home and a car in Iran. That will be the time for me to come back and settle down in my home country, Iran."* We have done a simple analysis in Appendix B to see how long it will take for a typical university graduate in Iran to buy a reasonable home and car, assuming that the graduate finds a good job after his/her graduation and he/she doesn't get laid off in the period of his/her money saving. It is clear that these assumptions happen quite rarely in today Iranian society. Getting results from Appendix B's last table, we can see that it roughly takes 20 and 5 years for a well-paid software engineer to afford to buy a reasonable home and car in Iran. Once again, all the assumptions are based on personal experiences and investigations.

2. **Weak Financial Infrastructure in Iran:** Financial instability, high interest rates, poor financial insurance and high annual inflation rates are among the factors, which lead to poor financial infrastructure in Iran. The same reasons also prevent investors from investment in Iran. For instance, the comparison of inflation rates in Iran, Canada and the US in the period of years 2000-2003 are shown in Figure 1. One of the key problems, with direct negative effect on the educated employees in Iran, is the unequal low increase of income comparing to the annual

inflation rate. For example, if the annual inflation rate for a typical year is 12%, the average income for the government employees does not increase with this rate and this is one of the basic financial problems for the most of people in Iran. Therefore, those who even are quite wealthy consider it unsafe to invest inside Iran. Furthermore, for most of the educated employees it remains like a dream to own a home or even a car, unless they attempt to take two or even more jobs at the same time or with the financial aid of their parents or other similar rare solutions.

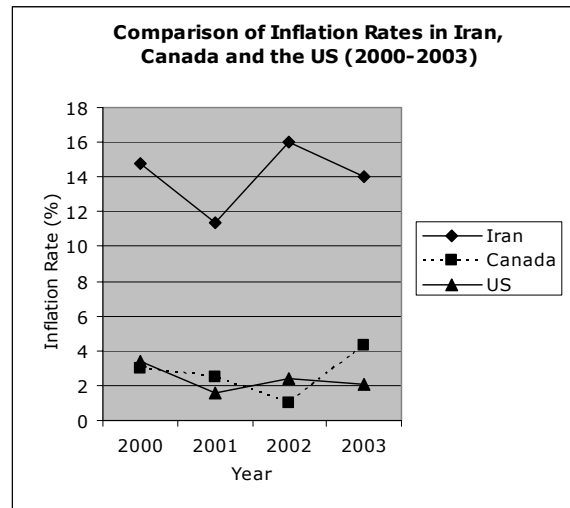


Figure 1-Comparison of Inflation Rates in Iran, Canada and the US during years 2000-2003. The statistics for Iran, Canada and the US are from [6], [7] and [8] respectively.

Social Reasons for Immigration

There are people that, for any reason, do not like the lifestyle and social situation in Iran. They include, but are not limited to:

- People who don't like the limitations the religion (Islam) has enforced in the society.
- Those who are not comfortable with existing tradition norms in Iranian society.
- People who prefer the modernity of the west to Iran's semi-modern environment.
- Even unbelievably, those, who think it is an honor to live in a foreign country outside Iran. They imagine living abroad brings some kind of "prestige" for them in front of their family, friends, relative and others.

Educational Reasons for Immigration

As to the author's knowledge, the tendency towards pursuing higher education in foreign countries, among them north America mostly, is growing dramatically among Iranian university and even high school students these days. As a support for this claim, several officials from different Iranian ministries and organizations, among them Ministry of Science, Research and Technology, have repeatedly announced that very high ratio of top universities' graduates are leaving the country for higher education abroad. Among those who leave, students with high ranks in university entrance exams ("Konkoor") and also talented students of Olympiads are remarkable. As a personal experience proving the claim, the author's BSc graduation class size in Sharif University of Technology was around 45 students in year 2000. Among those, roughly 15 students chose to leave Iran to pursue graduate studies, mostly in PhD level, in American, Canadian and European universities. Of course, the ratio of students from each graduation class, who decide to go abroad for graduate studies, well depends on the discipline, the education standing of the students, reputation of the graduation university and many other factors. There are various electronic forums linking Sharif friends and alumni together. Web sites at <http://www.sharifih.com> and <http://users.ece.gatech.edu/~pouyan/sharif.htm> are among the interesting ones. Some others do also exist for other universities' graduates, for example Tehran University and Shiraz University. Those forums also show some of the immense distribution of Iranian alumni around the globe.

Focusing back again on the reasons why university (or even high school) graduates choose to leave Iran to pursue the rest of their study abroad, we are going to report some experienced rationales. The reasons will be some of the fundamental reasons why Iranian experts emigrate from Iran with the basic educational reasons. Let's classify these educational reasons for leaving Iran into three main categories:

1. **Financial aid during the graduate study in abroad:** Although this reason is somehow related to the economic reasons of immigration, it is mainly an educational and academic motive. Most of the good western universities provide graduate students with financial aid, in the forms of teaching/research assistantships, bursaries and fellowships. In most of the cases, this aid is enough for a graduate student to afford a reasonable lifestyle. For a good explanation on expenses and financial aid matters, please refer to a very good article on "How to Apply to Graduate Schools" [1], by an Iranian graduate student, section "Living expenses, tuition and financial supports". When a graduate student

receives enough financial aid while studying his MS or PhD degree to afford a comfortable life, it will be a *peace of mind* for him/her to focus on the study and spend his/her full-time to do a good job in graduate study's research. This will not only make a talented researcher and intellectual from the graduate student, it will also add to the activity in the country's research community. It will also lead to a productive research results which can be applied in the nation's industry and society. To the experience of the author, those who do their graduate study in Iran, even in the top universities such as Sharif University of Technology or Tehran University, rarely receive funding in the form of teaching/research assistantships, bursaries and fellowships. There are some PhD students in Iran, who have accepted to get some bursaries from the government, which are generally very low to afford a reasonable lifestyle. In turn of those low-value bursaries, they should sign a contract to serve anywhere and under any circumstances, asked by the granting agencies, after their graduation for a couple of years. Clearly, this quite-tough commitment prevents many from getting those scholarships. Going back again to the lack of graduate studies funding in Iran, the author personally knows many of his class-mates and friends who have studied their MS or PhD in Iranian top universities. But due to the lack of any scholarships from the school, they have had to work part-time outside the university, in software companies, teach for *Konkoor*¹ classes, or even do labor works, unfortunately.

2. **Unsuitable university and research infrastructures in Iran and better ones abroad:** Unfortunately there is quite big difference between research environments and activities in Iran and most of the developed countries, for instance Canada where the author has really experienced. Research-related parameters like research laboratories, equipments, grants, and the social discipline are some of the major differences. Better and more convenient access to libraries, research journals and articles, the Internet, research communities,

¹ *Konkoor* is the title of the Iranian nation-wide university entrance exam (one round or two rounds depending on the yearly rules), taken every year in spring or summer, among high school students from all over the country. Very low ratio gets the chance to enter universities, e.g. more than 1.5 million students complete annually these years, and less than 20% of those get the permission to enter universities.

professionals in same research area, research conferences and meetings, professional industrial links are also among very important factors which tempt young university graduates to leave Iran. To the knowledge of the author, the relationship between industry and universities is currently in a very poor situation in Iran and is not comparable at all to those in western countries, such as Canada and the US. In North America, for example, there are so many contracts and projects between universities and industrial companies. Giant companies like IBM, Microsoft, Motorola, Bell, Ford, Nortel, Mitel, Cisco and others assign a portion of their annual revenues to invest in academic research activities in universities and research institutes. In Iran, there are few cooperative research projects between industrial firms and universities. Even those, which exist, suffer from poor management, very low value in funding and, consequently, weak research results. Aside the grants universities receive from the industry; western governments also have several powerful and active research agencies. These agencies are assigned a portion of the national budget every year and they have rules on dividing the whole research budget to different researchers in different universities and institutions nationwide. To give an example, among the governmental agencies in Canada, the followings are the major ones:

- Natural Sciences and Engineering Research Council – <http://www.nserc.ca>
- National Research Council Canada - <http://www.nrc.ca>
- Social Sciences and Humanities Research Council - <http://www.sshrc.ca>
- Communications Research Centre - <http://www.crc.ca>
- Networks of Centers of Excellence - <http://www.nce.gc.ca>
- Canada Research Chairs - <http://www.chairs.gc.ca>
- Innovation in Canada - <http://www.innovation.gc.ca>
- Policy Research Initiative - <http://www.policyresearch.gc.ca>
- Canadian Institutes for Health Research - <http://www.cihr-irsc.gc.ca>

Some of the similar American governmental research agencies can be listed as:

- National Science Foundation (NSF) - <http://www.nsf.gov>
- National Space Science and Technology Center (NSSTC) - <http://www.nsstc.org>

- National Research Council - <http://www.nas.edu/nrc>
- National Institutes of Health (NIH) - <http://www.nih.gov>
- National Center for Research Resources (NCCR) - <http://www.ncrr.nih.gov>

Taking into account the research budget spent in different countries, we are going to compare the national research budgets in Iran and the rest of the world. Gross Domestic Expenditures on Research & Development (GERD) is the international concept used in this regard. GERD value is defined as the percentage of country's GDP (Gross Domestic Product)¹. GERD values of Iran and other countries/regions in the world are sketched in Figure 2. Some countries of a region are averaged into one series to get a big picture. For example in the year 1994, Iran's GERD was around 0.4% and the average of that in the western European countries was roughly 1.8%. North American nations had the world's maximum value of 2.5%.

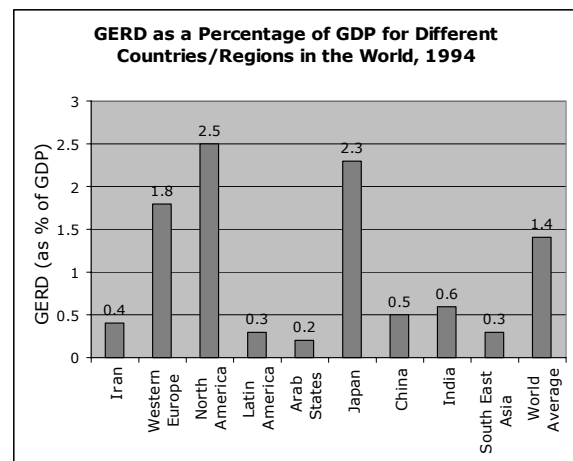


Figure 2-GERD as a Percentage of GDP (Gross Domestic Product) for Different Countries/Regions in the World, 1994. Values are extracted from [10].

As another comparison, we have extracted the GDP (Gross Domestic Product) and also GERD values of Iran, Canada and the United States in the year 2002, and have compiled their GERD budgets and GERD percentages in Figure 3. The total GDP values of Iran, Canada and the US, in year 2002, were \$456 billion, \$923 billion, and \$10.4 trillion, respectively [4]. As Figure 3

¹ GDP is the total goods and services produced by a nation during one year excluding payments on foreign investments.

shows, Iran's GERD is still about 0.4% value of year 1994. Canada and the US have good investment in research and development by injecting 1.7% and 2.75%, respectively, of their annual 2002 GDP in research and development (R&D). Focusing on the GERD budget values, the one for the US is actually shown to be the highest in the world with almost \$286 billion, and more interestingly, this value alone is roughly equal to the half of Iran's 2002 total income (GDP), \$456 billion. This big investment in research is one of the main reasons that leads to daily cutting-edge research results, gained in North America, Europe and Japan.

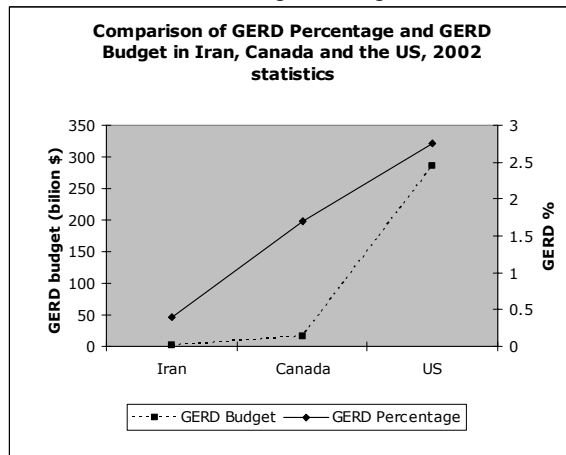


Figure 3-Comparison of GERD Percentage and GERD Budget in Iran, Canada and the US (2002 statistics). Values are from [11] and [12].

Looking at the number and the funding amount of research grants in Canada and the US, offered by the governmental agencies and comparing those to the statistics in Iran, the immediate need for increase in Iran's annual research budget is easily understandable. It is very obvious that research is the first and the basic factor in development of a country. The western countries have already understood the need for the academic research, have planned for it, and have invested in very large for it.

The author believes that any possible attempt from the side of Iranian decision makers to develop research and university infrastructures in Iranian universities and research institutions is immediately needed. It is obvious that Iran owns very talented research scientists and intellectuals and they deserve a much better research infrastructure and management to host them. We truly need such a system in Iran as soon as possible in the current quick-advancing world.

3. **Suitable jobs after graduation in abroad:** Finding an "appropriate" job after getting a

higher education in advanced countries is quite easy. By "appropriate", we do mean a well-paid, safe and degree-related occupation. This is a very important issue for a university graduate. Talented students have spent most of their life, almost from their seven years old, studying hard to enter top universities in Iran and graduate with a high GPA (Grade Point Average). They *expect* and, in fact, *deserve* a suitable job after graduating with BSc or higher degrees in Iran. But to the understanding of the author, the job market in Iran has been in, unfortunately, poor circumstances these years. Among the problems a new university graduate faces after getting his/her degree in Iran are: (1) many graduates, very few hiring positions, (2) not fair assessment of skills and qualifications in many companies and organizations (either private or governmental), (3) unsafe positions, meaning that the new employee might get laid off very soon after being hired without, in most cases, fair compensation packages and (4) very low income, comparing to the relatively high living costs in Iran, in the case he/she is successful in finding a job. Being honest, although the job market all around the world is not so good these days, due to the many reasons, such as the September 11th terrorist attacks in the US and the slowdown of IT (Information Technology) industry in the recent years; however, if one does a very good job in his/her study time and pursues high merits, it will not take very long for him/her to find an "appropriate" job in advanced countries, *specially* if his/her last degree is from a well-known university in an advanced country. BBC's Persian Service reports in [9] that one of the major reasons of Iranians' immigration is the unemployment rate in Iran. For example, the unemployment rate for medical doctors is about 13% in Iran, while the real estimates confirm it to be around 20%. According to CIA's report in [4], there is high total unemployment percentage of 16.3% estimated in Iran for the year 2003. The BBC's report, [9], says that 80% of the graduates of NODET (National Organization for Development of Exceptional Talents, <http://www.nodet.net>) emigrate from Iran.

Since the author got his BSc from the generally known prominent university in Iran, Sharif University of Technology, he has witnessed the enormous ratio of his classmates, colleagues and friends applying for top foreign universities, mostly American and Canadian ones, getting admission and visa, and then leaving Iran toward that country to continue their graduate studies. Many of those

Iranian university graduates, now studying in top world universities have kept their close relationships with their friends, no matter where they are. Some students have gathered their own experiences in the process of applying, getting visa and leaving, and published them as public resources. For instance, two Sharif-graduated talented graduate students in MIT (Massachusetts Institute of Technology, Cambridge, United States - <http://www.mit.edu>) have published two very useful articles, [1] (in English) and [2] (in Farsi), on how to apply to graduate schools abroad. In those papers, the assumptions are made mostly on North American universities. Self-experienced topics such as obtaining application forms and letters of recommendation, visa, traveling tips, living expenses for a graduate student abroad, tuition and financial supports, and other useful issues are covered in a simple-to-understand and tidy way. Many Sharif graduates use those resources every year on their application process for the abroad universities.

Cultural/Religious Reasons for Immigration

As said in the preface of Section 2, some of the current Iranian youth practically have pretty much good view from the life in the western world. They have heard about the freedom, joy and comfortable life (though not necessarily to be correct all the times) in the west through many sources. It is very important to say that those perceptions, in the most of the cases, only consider the positive sides of the coin, ignoring (intentionally or non-intentionally) the negative parts of the life in the west. For any cultural or religious reasons it might be, those people prefer to leave Iran and immigrate to a foreign country. Among those reasons, these cases have been seen: (1) preferring to live in a different society with less religious limitations, (2) detesting living with traditions, and (3) possessing fundamental problems with the government, the society or the religion.

As said, there exist some others who have an illusion, in the sense that they have false impressions of real life in the outside of Iran. They imagine that one can have unlimited freedom, joy, trouble-free money and comfortable life in the foreign countries. However, those dreams rarely come true in the first years of immigration and they need patience and hard working. Real life experiences have shown that many new immigrants feel shocked when they first arrive in a western country and find out that the real life there is generally different than what they had expected and had dreamed of. So it is also very important that *correct* information about the life in

the west should be given by people who have experienced it to those who haven't.

It should also be noted that comparing living, social and related topics between Iran and the western countries is somehow outside the topic of this paper and needs further research in other relevant areas.

The Rate of Immigrants from Iran

Considering the time period during years 1995-2003 and according to the reports in [4] and [5], the immigration rate has been quite high in Iran. Figure 4 shows the immigration rate from Iran, Pakistan and Turkey. Note that the values for the current year, 2003, are predicted. Comparing Iran's statistics to those of Turkey and Pakistan during the same time period, we see quite a big difference. Turkey's rate is almost the constant value of zero, meaning that the number of immigrants from and to Turkey have been equal during these years. Maybe part of the reason for Turkey to possess *zero net* immigration rate these years is due to the fact that many workers, mostly low-level, from its neighboring countries, including Iran, go to Turkey to work in low level occupations, since despite Turkey's bad economy and job positions these days, it is still much better than those of its neighbors, including Iran. This inflow of low-level work force to Turkey balances with those scholars and some workers leaving Turkey and fixes the country's immigration rate to be around zero. Pakistan's rate has been on decrease since 1995. Focusing on Iran's immigration rate in the Figure 4, one would see that the rate has a slow decreasing slope until 2002. Very interestingly, CIA world factbook 2003 [4] has predicted that Iran's immigration rate in year 2003 will be 0.086%, or about one immigrant for every 1000 population, which is roughly equal to that of Pakistan in this year. This value is a big decline from the values' of the previous years, which are roughly 4 or 5 immigrants out of every 1000 population. Maybe part of the reason for this low outflow of Iranian immigrants in 2003 is because Canada tightened its immigration rules dramatically in year 2002. Canada is believed to be one of the most favorite destinations for Iranian immigrants. Unofficial statistics identify Toronto (Canada's largest city) to be the second most Iranian-populated city outside Iran after Los Angeles in the US. Toronto is said to host some 100,000 Iranian immigrants. Discussions on this interesting topic and investigating the possible reasons for this big decrease in year 2003 need further works in the areas of Iranian sociology, politics or related areas.

According to many governmental reports, most of the Iranian emigrants hold higher university degrees, like BSc, MSc or PhD. BBC's Persian Service's report in [9], which uses statistics from *Barnaameh* magazine, published by Iran's State Management and Planning Organization (<http://www.mporg.ir>), says that some 150,000-180,000 highly educated Iranians attempt to emigrate from Iran annually. Equally to support this number, an estimation of this value can be easily obtained from Figure 4. For example, the immigration rate for year 2002 is 0.446%, multiplying this number by 65,000,000 (Iran's estimated population) will give us 289,900 immigrant in year 2002. So we had about 794 immigrants, leaving Iran *daily*, in year 2002. Going back to BBC Persian's report in [9], Iran has the 1st rank in the immigration of its experts (the report calls it the *brain drain*-in Farsi: "Farar-e maghz-ha") among 91 under-development and non-developed countries.

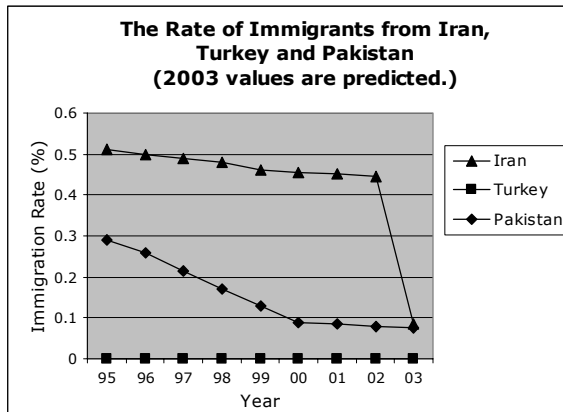


Figure 4-The Rate of Immigrants from Iran, Turkey and Pakistan during the years 1995-2003. The values for the year 2003 are predicted. The statistics are extracted from [4] and [5].

The same report, [9], also mentions the success of most Iranians in the United States. 84% of Iranians in the US are completely fluent in English, 46% have PhD degrees, 43% are in management positions, 48% have two occupations, and 92% of Iranian-Americans have their own homes.

So far, we discussed the different reasons why a person, a university graduate in particular, decides to leave Iran and immigrate to a foreign country, mostly western countries in practice. We also analyzed the rate of immigrants from Iran in the recent years and compared it to those of two neighboring countries: Turkey and Pakistan. In the following section, we are going to identify some of the losses imposed on Iran due to the immigration of Iranian experts and the elite.

3. The Losses of the Country due to Experts' Immigration

Looking from a high-level view, the immigration of Iranian experts in the last decade or so has inflicted very critical damages to the Iranian economy, business, education and, more seriously, to Iran's future and development. Here, we classify the losses, caused by the immigration of Iranian experts, into three main categories: (1) Economic, (2) Educational and (3) Social.

Economic Losses

Considerable part of the annual Iranian budget goes to schools and higher level educations. According to the study in [3], Iranian GDP was \$456 billion in 2002, 4.6% of which was spent on education. Reports in [4] and [5] show that, in 2002, there were some 4.46 Iranian migrants out of 1000 population. BBC Persian Service reported in [9] that some 150,000-180,000 highly educated Iranians emigrate from Iran annually, or about 450 daily. Considering the budget spent to educate this percentage of mostly highly talented people in the course of their primary and higher education in Iran, and inability of immigrant experts of paying back those mostly free educational services to Iran, the big negative economic effect of the immigration becomes very obvious.

Educational Losses

Considering again the statistics in the section of Economic Losses, among the highly-education immigrants, there are many brilliant people with MSc and PhD degrees, who can act as university, college and high school professors, instructors and teachers and be part of the powerful force to develop the country's educational system. Obviously, immigration of future excellent teachers and university professor is a big loss to the nation. Losing talented scholars who can be Iran's future university professors and active researchers leads to a big slowdown in Iran's universities, academic societies and research institutions. For example, comparing the number of scientific publications in international journals and articles originated from researchers in Iran to those from Turkey, one can notice that research activities in Iran's are relatively very indolent than Turkey and therefore, other western countries.

Social Losses

Iran is suffering from the social losses due to the immigration of its experts in the sense that the number of highly educated professionals is reducing in the society on a daily basis. The statistics from Ministry of Science, Research and Technology about the number of high school students admitted to public universities and also Islamic Azad University adds up to some 300,000 new university students every year. If we consider, even if, all of those who enter the universities will graduate successfully, we can see that almost 50% of graduates (and off course the best ones) try to leave the country. Therefore, in a long run, Iran will be run out of talented intellectuals, which counts to be a very serious damage to the society.

According to the discussions forgone, Iranian society is losing high-educated people on a daily basis. Studies like this can help decision-makers in Iran to apply solutions to balance, in fact reduce, the immigration rate of experts and take scientific/economic benefits from the academic/business relations with Iranians abroad, which in turn will have huge contributions to the Iranian's society, future and development.

4. Solutions

We already discussed the reasons why university-graduates emigrate from Iran to foreign countries and also the losses imposed from them to the country in Sections 2 and 3, respectively. As discussed in Section 3, apparently experts' immigration imposes major losses to Iran's economy, business, education and, more seriously, to Iran's future and development constantly. It is very easy to conclude that this problem is accumulating every year and if no action is taken to control it, it will become a serious problem for the whole country in the very near future. The first straightforward solutions are those who solve the real or potential problems, which are basically the reasons encouraging Iranian youth in general and university-graduates in particular to emigrate from Iran. Those reasons were discussed in Section 2. In this section, we will talk about the possible solutions to reduce the large ratio of experts' immigration from Iran. We have discovered three actors, which can be of help in playing the role as positive factors to decrease the immigration ratio. They are (1) Government, (2) Educational Institutions, and (3) the Iranian society. The following parts will discuss these actors in more detail. We will focus on the solutions to the problems, which Iranian youth face in the

current Iranian society and turn to be the reasons for them to emigrate from Iran. For each item, we will provide some common-sense based solutions, which can be undertaken to solve the (1) Economic, (2) Social, (3) Educational and (4) Cultural/Religious problems in Iran. Government's role can be discussed regarding all four categories of problems. However, the educational institutions' role and the society's role should be obviously concentrated on their own areas of effect, namely Educational and Social roles.

Government's Role

It is obvious that the government is the main acting power in a country. Key plans, social and organizational rules of the country are primarily defined, executed and managed by the government. Therefore in a big picture, it is principally the government's role to tackle the problem of large ratio of experts' immigration, analyze and find the feasible solutions to handle it, and finally apply the correct methods to reduce the ratio of people who leave the country. In the following, some of the possible solutions are proposed in four categories: Economic, Social, Educational, and Cultural/Religious. They are based on the Section 2 discussions about reasons for immigration. Each role is actually an answer for a reason category, mentioned in Section 2.

1. **Economic:** It is inferred that economic reasons are the primary reasons for many immigrations. Referring to Appendix A, where a typical comparison of salaries for the position "Software Engineering" in Iran, Canada and the US has been shown. By looking at the annual salary values, one can see that the base salary for a software engineer in Canada and the US are roughly five and six times of that in Iran. So the role of government, in the first outlook, becomes to increase the income level in Iran. Another negative factor in the economic reasons was the weak financial infrastructure in Iran. Therefore, among the many ways to solve economic problems in the country, the government can basically try to increase financial stability, lower the interest rates, enhance the financial insurance and also decrease the annual inflation rates in Iran. This will, for sure, have good impact on reducing the number of university graduates emigrating from Iran. We also compared the GDP (Gross domestic Product) and GERD (Gross Domestic Expenditures on Research & Development) in Iran and the western countries. Obviously, we found a huge difference between the research and development budget in Iran and those in advanced countries. Increasing GDP and

subsequently GERD, in long run, should be one of the major goals of Iranian government to activate the research activities in Iran. Having a powerful force in national research will bring lots of benefits to the country, such as gaining international asset and credibility, making a powerful industry, increasing national GDP, and (most importantly in this context) preventing Iranian experts from leaving Iran and immigrating to other countries.

2. **Social:** We saw in Section 2 that some people, for any reason, do not like the lifestyle and social situation in Iran. From social point of view, laws can be modified in a way that social/religious-based strict rules are eased. In other words, government can provide more freedom, in its correct way and format, to people and especially youth. Also, for some people, the current traditional norms in Iran are so tough. There is room for these standards to be enlightened. Even for those, who think it's an honor to live in abroad!, it's partly government and media's responsibility to shed some light on this issue and prepare plans and programs to give and reflect the correct information and realization about the life in the west. The author believes the majority of Iranians have incorrect illusion of the life outside Iran before they experience it.
3. **Educational:** We saw in Section 2 that many talented university graduates to pursue their graduate study in western universities to those in Iran. They leave Iran to study in Masters and PhD degrees, mostly. After graduation, the experience has shown than majority of them do NOT come back to Iran. They start to work in either foreign universities or industrial companies. In both cases, they get paid a lot more than similar positions in Iran. The government's role, in this aspect, becomes to prepare the suitable infrastructures for researchers to be competitive with the foreign counterparts. This can be done by providing equipped, advanced, safe and comfortable research institutes and also facilities like high speed internet access, equipped research laboratories, and advanced libraries. The more important role for the government is to make a strong bridge industry and universities in Iran. Also, there should be a big increase in Iran's annual research budget to foster the research activities done in the universities and research institutes. More structured governmental agencies should be built to first distribute the research budget fairly, and also supervise, coordinate and manage the research works going on by the researchers. These are aimed to

provide research funding for the researchers, among them graduate students, in universities. According to the part: Educational Reasons for Immigration, in Section 2, providing a (talented) graduate student with enough financial aid, during his/her graduate study time, will finally give a very better product of his/her study in the term of research findings. Clearly, the positive side-effect of this productivity reflects, immediately, on the country's development.

4. **Cultural/Religious:** This part is closely related to the Social reasons of immigration and also the roles government can have to control the issue. Considering the cultural motives for emigrants from Iran, many sources have reported that Iranians, especially youth, don't have enough cultural freedom in the society. Actions like banning newspapers, satellite receivers, censoring media and especially access to the Internet, enforcing excess limitations on youth's cheerful activities like music, cinema and sports, are all among factors which put a typical Iranian youth in limit and basically encourage him/her to immigrate to a more-free country. These are parts of the realities in today's Iranian society and among Iranian youth, which need to be discusses and investigated in very detail by researchers in the relevant areas. Of course, discussions on these solutions are related mostly to government politics and should be addressed and discussed by higher officials.

Educational Institutions' Role

From the high viewpoint, the educational institutions are rules and managed by the government in every country. So basically, the roles that educational institutions and universities can play to reduce the immigration rate of Iranian experts are influenced by the Iranian government's decisions. However being more specific, educational institutions have their own management teams and decision makers. University professors are those who generally have the most interaction with university students. In the current Iran, part of these students will be tomorrow's emigrants from Iran. Universities can design some plans to encourage the graduates to *stay* in Iran, increase the team work and, in fact, the sense of more loyalty to the country in students. If university graduates feel that, firstly, their efforts are welcome and appreciated by the country, they are part of the team to build Iran and in this way they will pay back to their homeland, and secondly, by doing so they can set up a reasonable life for themselves in Iran, why would they choose to leave their motherland and go

to exile to make everything from scratch (this happens in the most of the cases)? So the issue is very simple to understand, but very hard to apply in the reality. People emigrate from the place they are not happy with life to a place they are, or at least they think they will be. Again it should be said that, educational institutions should propose plan to the government to enhance the research infrastructure in universities. They should try to make connections with industry to get funding for their research activities. This way, university graduates will be attracted to stay in Iran to study their higher degrees. Unfortunately, many students have been observed that they first didn't had the intention to emigrate from Iran to study their higher degrees abroad, and they stayed in Iran because of many reasons like strong family or country-based ties and commitments. But after several years and getting disappointed by the research and job situations in Iran, they finally decided to leave Iran.

Society's Role

Society is where the people spend their daily life and essentially get their first education. There are many people who don't like living in Iranian society for many reasons, like those mentioned in Section 2. Some people in Iran are not happy with the traditional beliefs, society norms, un-modernity of Iran comparing to western countries or other society-related factors. Especially these days, young people are very different than the older generation in Iran. More tensions happen between older people and the youth, for example fathers and sons, find different opinions and viewpoints on a typical discussion. We should accept that the whole world is changing more rapidly in the new century and we should take actions to be with the changing speed. So some short-term and long-term plans by the government should be made and it is the society's responsibility to apply them and adopt itself to answer the needs of the Iranian youth. The society should also welcome new professionals into itself by valuing them, appreciating their efforts and giving them the opportunity to do their bests and proving themselves. For example, marriage has become a problem these days in Iran. There is quite a standard rule that says: "If a boy, asking for marriage, does not own his home and car, then he is not ready for the marriage and most probably will not be accepted by girl's family to marry their daughter." Referring again to Appendix B, where we have estimated the order of years, a new graduate needs to wait and save money to buy his own home and car, one would see that marriage has become a trouble for many young people, mostly

boys who are traditionally believed to manage the family and own the home and car. This seems to be a simple issue, yet it is very important questions in Iran these days. Society's role, in this regard, can be to mediate expectations from young boys who want to form a family. Of course, living in Iran and building your own career and future needs patience and time.

5. Attracting Abroad Iranians

Partly in accordance with Section 4 (Solutions to reduce the immigration ratio of Iranian experts), in this section we will provide some ways to attract abroad Iranians. If Iran was not once able to *keep* immigrants from leaving Iran, now it can encourage them to *come back*. This encouragement, of course, needs setting up the certain preparations to attract and host Iranians who have left Iran to immigrate to western countries and have lived there for a while. If those, who have left Iran years ago and settled down in other countries, see an appropriate society and infrastructure in Iran someday, it may very possibly attract them to come back to Iran, live here and invest in Iran. Evidently, if those people, who have experienced the problems mentioned in Section 2 and those difficulties became the reasons for them to emigrate from Iran, realize that the problems have partly solved in Iran, they will consider coming back to their motherland. To attract highly educated abroad Iranians, who can be of great help to Iran's education and generally to Iran's economy, we should have a safe, modern, and equipped research and university infrastructure. Of course, very big increase in Iranian university salaries is also a must to attract abroad Iranian professors and PhDs, because the current salaries for professors in Iran are extremely lower than similar position abroad.

6. Current Reality in Iran and outside it

In short, life in the current world is not an easy task in our times. The world economy has decelerated quite a much recently, partly due to the September 11th terrorist attacks in the US and the slowdown of IT (Information Technology) industry. Among so many possible issues, let's briefly compare the current reality of situations in Iran and outside it from these points of view: (1) Money and Job, (2) Life and Freedom and (3) Ties and Homesickness Problem in Abroad. This comparison will make things clear for those who don't have enough view and knowledge from these existing issues, which are critically needed to carefully think about before making any

decision on choosing where one wants to live (in Iran or outside it) for at least several years or possibly the rest of life. There are numerous tradeoffs in this subject, which needs to be discussed much more in another research works.

Comparing Money and Job-wise

Finding good jobs even in Canada, US and European countries is not so easy nowadays. There are so many unemployed people in western countries and more people are laid off from many high-tech companies on a daily basis because of worldwide financial problems. Some new reports, [4] and [13], declare the unemployment rate of 8.3% (average), 7.6% and 5.8% for Europe Union (EU) countries, Canada and the US, respectively, for 2002. According to [4], there is high unemployment percentage of 16.3% estimated in Iran for the year 2003. But as said before in the previous sections, even if one gets a job in Iran, the salary will not be *enough* to afford a reasonable life. Yet, the salaries in the most of the jobs in western world are usually *enough* to afford a comfortable and worry-free life. Also if one gets a job, saving money in western countries is not hard. Many abroad Iranians have been able to collect a considerable amount of wealth and subsequently do investment in Iran or outside it and afford a reasonable lifestyle.

Comparing Life and Freedom

To many people, the daily life in Iran has much more restrictions than that in western countries. To the belief of the author, if this is correct, neither having so many limitations in the society nor having almost no bounds is good. It seems that social issues in Iran and western countries tend to place close to the two sides of the an extreme. Although the western culture (Americanization) might have positive sides, but none or less, it has bad effects in a society. There are many social problems, especially with youth, in North America and European countries. Issues like drugs, crimes, poverty, and sex oriented problems such as prostitution, homosexuality are among the serious troubles that the western countries and Americanized nations face these days. It seems that during the last decade or so, the wave of Americanization has entered Middle Eastern and Asian nations and Iran is no exception. Eventually, it remains to be the government and society's rule to wisely face with this cultural/social change and adapt in a correct manner.

From another point, immigration is a very valuable life experience, because the immigrant gets

to know different people, cultures, norms, societies and etc. For example in a multicultural country like Canada, which is one of the most considered destinations for immigrants, one has the chance to see different people from almost every country in the world. When one walks in the street, for instance, one would see local restaurants selling foods from many different countries, for example Italian food, Chinese, Taiwanese, Korean, Mexican, German, French, Russian, Turkish, Greek and many others. One can hear people speaking so many different languages and dialects in the street. An immigrant learns diversity, open-mindedness, and many other skills as well in this experience.

Personal observations have proved that family relations and respects, and positive traditions of a rich culture are things that are hard to find and observe in western countries, while we see frequent instances of those norms in Iran. In North America, especially, almost everything is based on business. If something is profitable, it should be done. For emotion-oriented people like Iranians, it becomes a little bit hard, in most of the cases, to face the cold culture and relations in western countries. Of course, many people get used to it after a while, but for some, it remains to be an uncomfortable part of life in the west.

Ties and Homesickness Problem in Abroad

Many studies have shown that majority of new immigrants face their homelands' ties-related problems in their first years of settling in the host countries. Homesickness is another battle. Due to the fact that they are new in the country they want to call home, most of the newly arrived immigrants hardly know the meaning of socializing in the new society. Homesickness is bred from loneliness. Author has seen some Iranian graduate students, in Canada, who had high phone bills regularly. Often, in their conversations, they discussed their emotional problems with their parents, and they debate whether or not the immigrant student should return to his homeland, a *reverse* immigration. But, just like centuries of immigrants, they rarely tell them much of the reality in the west. They want maintain the western world dream for people back in their home country. Many also feel that they miss their family, friends and relatives. They keep in touch by different means such as: phone, email and letter. This is actually natural and a new immigrant keeps this habit for a long time. It finally decreases and becomes part of person's habit and the immigrant no longer feels frustrated with it.

Many others also feel that they miss their mother language, home culture, food, customs, and environment. Trying to find any common points to get together and keep the ties with countrymen and mother language/culture, there are so many established social, cultural, scientific, political, religious Iranian societies and associations abroad to help Iranians get together to feel something like home and share issues with each other. The following web sites belong to some of those associations and societies:

- <http://www.icsnm.org>: Iranian cultural society of New Mexico, US
- <http://studentorgs.georgetown.edu/ics>: Iranian Cultural Society at Georgetown University, US
- <http://www.iacs-md.org>: Iranian American Cultural Society of Maryland, US
- <http://www.icscalgary.org>: Iranian Cultural Society of Calgary
- <http://www.iranculture.ca>: Iranian Cultural Center, Ottawa, Canada
- <http://www.iman.org>: Iranian Muslim Association of North America
- <http://www.valieasr.com>: Vali-e Asr Islamic Centre, Toronto, Canada
- <http://www.mohandes.com>: Canadian Society of Iranian Engineers and Architects
- <http://www.myisaw.com>: Iranian Students Association at the University of Waterloo, Canada
- <http://www.persianradio.net>: Ottawa's popular Persian radio program, Canada
- <http://www.icsnc.org>: Iranian Cultural Society of North Carolina, US
- <http://www.montrealpersian.net>: Montreal Persian Network, Canada
- <http://www.vazhe.com>: Association of Iranian Authors and Artists in Toronto, Canada
- <http://www.stanford.edu/group/psa/links/links.html>: a long list of Iranian students association abroad.

There is also an important issue of transferring immigrant's mother language, traditions and culture to the second generations. The experience has proved that practically it is quite hard for the first-generation immigrants to grow children, who learn parent's mother tongue and culture, unless the parents really do their best and spend lots of time with the children. There are also few Iranian Farsi language schools in big world cities, where big populations of Iranian immigrants live, such as Los Angeles in the US and Toronto in Canada. The linguistic and cultural issues in the second generations of Iranian immigrants require further works in the areas of linguistics, sociology, family and cultural studies.

Tradeoff between Staying in and Leaving Iran

So far in this section, we illustrated pretty much a small window to the issues which an Iranian immigrant might face in the first years of arrival in his/her destination country. We also compared those to some similar situations inside Iran. But clearly the final decision on whether to leave Iran or not, with immigration purpose, depends on the different conditions the typical person has inside Iran, his/her goals and expectations of life, future plans, and may other personal issues. Obviously, immigration is a very important decision one may make in his/her life and it, for sure, not only affects at least the next several years of a person's life, but also his personality, future, destiny, and probably his/her family's fate.

One major issue remains important in this point and that is: honest and correct information from the different aspects of life outside Iran should be researched, investigated, gathered, published and given to the generation inside Iran, considerable portion of which are considering emigrating from Iran in the near future. As it seems that we don't generally have correct understanding of the west in Iran these days.

7. Conclusions

In this paper, we provided a personally-experienced survey on the subject of the immigration of Iranian experts and the elite. We particularly aimed to identify and present the general reasons why Iranian youth decide to emigrate from their homeland, what are the costs and losses of their immigration to the country, and also the potential solutions, the government, Iranian educational institutions, and the society might be able to undertake to reduce the rate of professionals' emigration outflow. Aside other issues, we also investigated Iranians immigration rate in these years and compared them to those of two neighboring countries: Turkey and Pakistan. Some analyses were also done on basic reasons motivating Iranian intellectuals to leave, such as comparing salaries in Iran and outside it, and the economic analysis on the average number of years it will take for a typical well-paid engineer in Iran to buy a reasonable home or a car. We also gave a brief discussion on how to attract Iranians from outside. We talked about required preparations, needed to be done by the Iranian government and the society, to attract and host Iranians who have left Iran. We also gave a short view on the current reality of life, in general, in Iran and outside it. In sequel, the tradeoff

between staying and leaving Iran was briefly given. We also saw a few points of different aspects of life in Iran and western countries and how Iranians live in those countries. It should also be mentioned that this study was just a small window on the issue of Iranians immigration. It was based on personal experiences and was augmented by statistical data, mostly from the Internet. Further works on the different issues, identified in this paper, should be done in other related disciplines such as sociology, economics, education, politics, and religions studies. Obviously, immigration is not an easy task, because a new immigrant should adopt a new culture, society, and he/she should expect to be a different person gradually, not the same as the person he/she was in Iran.

As the final words, it is expected that more and more Iranian youth, mostly university graduates, will tend to leave Iran to live, study or work in advanced countries, mostly. This unidirectional outflow, which usually doesn't have the return path, has fundamental reasons related to life difficulties in Iran and imposes serious costs to Iran, in general. Immediate plans and actions should be taken by the whole nation, including the government and the society to lessen this outflow and also attract some of those Iranians who have already left their homeland. It is obvious that Iran owns very brilliant youth, scientists and intellectuals and they deserve a much better working and living infrastructure and facilities.

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Appendix A: A typical comparison of salaries for the job title “Software Engineering” in Iran, Canada and the United States: A motive for experts’ immigration

Notes:

- All salaries are **annual** and for the positions in the area of Software Engineering, like a basic programmer or developer.
- Iranian salary data are based on an average experimental view by the author on his own and his friends’ wages working inside Iran in both governmental and private companies as Software Engineers during the years 1996-2000 (1376-1379 in Jalali calendar) and also some updates from the recent years. We assume the base salary for the job title “Software Engineering” is $5,000,000 \times 12 = 60,000,000$ (Iranian Rials) per year currently (year 2003), which is generally a higher-than-real-average estimation.
- Canadian salary data were extracted from “Monster.ca - Salary Centre” at <http://salary.monster.ca>. The base salary for the job title “Software Engineering” was \$49,038 CND (Canadian Dollar) annually as of September 2003.
- United States salary data were extracted from “Monster Salary Centre” at <http://salary.monster.com>. The base salary for the job title “Software Engineering” was \$46,420 USD (US Dollar) annually as of September 2003.
- Both exchange rates are taken from <http://www.xe.com> on September 2003. As 1 USD = 8,336.36 Iranian Rials and 1 CND = 6,100.9 Iranian Rials.

Base Salary for a SE in Canada (CND)	Base Salary for a SE in the US (USD)	Avg. Salary for a SE* in Iran (Rials)	Base Salary for a SE in Canada (rounded to Rials)	Base Salary for a SE in the US (rounded to Rials)
\$49,038	\$46,420	60,000,000	~300,000,000	~386,000,000

*: Software Engineer

Appendix B: A simple analysis to see how long it will take for a typical university graduate in Iran to buy a reasonable home and car

This analysis is done to see how long (in years) it will take for a typical university graduate in Iran to buy a reasonable home and car, assuming that the graduate finds a good job after his/her graduation and he/she doesn't get laid off in the period of his/her money saving. We also assume that incomes' rise equally with the national inflation rate. It is clear that these assumptions happen quite rarely in today Iranian society. So, this analysis will give the solutions in the best case. Here, we put our consideration on most of the large cities in Iran, for example Tehran, Tabriz and Isfahan. Because most of the new university graduates, who stay in Iran, tend to settle down in large cities to work and live, partly because the majority of job positions are basically offered in large cities.

Average Annual Salary: In this analysis, we suppose the typical job title "Software Engineering" for the typical university graduate, which is a very well-paid occupation in Iran these days comparing to other jobs. Using the values from Appendix A, we will get the salary of $5,000,000 \times 12 = 60,000,000$ Iranian Rials annually, which is again generally a high estimation. Clearly, higher wages can be made mostly in larger cities, where relationally the costs are also higher and, in result, saving money to buy a home or a car is harder.

Average Home Price (at least 1 bedroom) in Large Iranian Cities: A new university graduate, who has found a job, might very possibly think of getting married and establish a family. The smallest home for a couple is a 1-bedroom unit. The larger the city is in Iran, the higher the average home price will be in it. Let's assume the average price of a 1-bedroom unit in large Iranian cities is 250,000,000 (Iranian Rials), which is roughly a good estimation.

Average Car Price in Iran: Let's assume Peykan to be the average car one may buy in Iran. The latest value of a new Peykan in Iran is about 60,000,000 Rials.

Other Living Expenses: A single person or a couple has, for sure, living expenses which consume their salary and savings. Items like rent, food, clothing, transportation and etc. For simplicity, let's put them in rental and non-rental categories. Average rent for a 1-bedroom unit in a big city can be estimated as $2,500,000 \times 12 = 30,000,000$ Rials per year. Non-rental expenses can be averaged to $1,500,000 \times 12 = 18,000,000$ Rials per year.

Annual Incomes and Expenses in Average: Summarizing income and expense items into one table, one can get this table for the typical software engineering job, we have assumed.

<i>Item</i>	<i>Incomes (Rials /year)</i>	<i>Expenses (Rials/year)</i>
Salary	60,000,000	
Rent		30,000,000
Non-rental expenses		18,000,000
Total	60,000,000	48,000,000
Net Value	12,000,000	

So, in the best case when no emergency case happens, a typical software engineer may save up to 12,000,000 Rials net after deducting expenses. Now, putting all the material above together, let's see how long it will take for our typical engineer in Iran to buy a reasonable home and car.

Years to Buy a Reasonable Home and Car: (with the Engineer's Annual Saving = 12,000,000 Rials)

<i>Item</i>	<i>Price</i>	<i>Years to buy</i>
Home	250,000,000	$250,000,000 / 12,000,000 \sim 20$
Car	60,000,000	$60,000,000 / 12,000,000 \sim 5$

About the Author



Vahid Garousi was born in 1978 in Miyaneh, Iran. He received his BSc degree in Software Engineering from the Department of Computer Engineering at Sharif University of Technology, Tehran, Iran in 2000. After graduation, he worked for one year in software companies in Tehran as Software Architect and Database Analyst. He then left Iran for Canada in 2001. He got his MASc degree in Electrical and Computer Engineering from the Department of Electrical and Computer Engineering at the University of Waterloo, Waterloo, Canada in 2003. He is currently a PhD candidate in the area of Software Quality Engineering at the Department of Systems and Computer Engineering in Carleton University, Ottawa, Canada. He is expecting to finish his PhD by 2006. Among his awards is the rank 61st in Iranian Nation-wide University Entrance Competition (Konkour) among about 490,000 students from all over the country in year 1996.

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