

**Iraqi Brain Drain - Motives and Consequences**

**By  
Huda Yahya Khudheir**

**THESIS**

Submitted to

KDI School of Public Policy and Management

for the degree of

**MASTER OF PUBLIC POLICY  
IN INTERNATIONAL RELATIONS**

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**Professor KIM, Dong-Young**

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## **ABSTRACT**

### **Iraqi Brain Drain - Motives and Consequences**

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This thesis examines Iraq experiencing brain drain, and government's policies in dealing with this phenomenon.

The consequences assert the key role of government in improving economic status in the country, a matter that helps Iraqi brains, who earned PhDs abroad, make their choices whether to stay or return home. However, this study points out some analysis about security conditions that affect the migrated brains. And it proposes the idea of imitation as an essential factor in brains' choice. Thus, Iraqi government needs to imitate a successful experience, like Korean policy concerning this issue.

The Iraqi government's policy is to regain the brains through adopting different strategies and incentives. Yet, the Iraqi policy procedures still need more to be done.

*Dedicated to the soul of my father  
Whom I can't meet in this life*

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Huda Yahya  
December, 2011

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## **Introduction**

The brain drain issue is serious for some countries when a large number of highly educated people leave their own countries or do not come back from other countries where the conditions and salaries are better. As a researcher from Iraq, it is shocking to find that Korea, which is one of the developed states, has suffered from this dilemma. Comparing with Iraq, Korea is a peaceful and developed country, considering its natural environment, infrastructure, and human resources. When it comes to Iraq that has lots of possibility from oil reserve, the dismal situation in Iraq today spurs brain drain in that country. Since 1980s, Iraqi people till nowadays, have suffered a great deal from wars, UN sanctions that lasted for almost 12 years, occupation, destruction of all its infrastructure, bombings, terrorism, displacement and immigration; During eighties and nineties of the last century and despite the government hindrance, a huge frustrated human flight took place in Iraq, that is 4 million Iraqis are believed to have left the country..1, and on top of them are the brains, due to the eight-year Iraq- Iran war and 12 years of UN economic sanctions. In the wake of the war on Iraq in 2003, professors, doctors and highly educated people were forced to leave the country, otherwise they would be exposed to death and kidnapping.

This thesis tries to understand the motives of Iraqi intellectuals to move away from their own country by analyzing the factors to affect their decisions in Iraq. Also, it's an attempt to discuss how Koreans dealt with this phenomenon, when they experienced a very hard brain drain following the Korean War, and during the late nineties, yet they succeeded in limiting it, a matter that Iraqis may take lessons and learn from the Korean experience. If Iraqis live in peace and achieve stability, then adopt procedures taken by Korea, concerning this subject,

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1- Hawley, Caroline. 2005. Brain drain puts new strain on Iraq. BBC News. [http://news.bbc.co.uk/2/hi/middle\\_east/](http://news.bbc.co.uk/2/hi/middle_east/)

and utilize their expertise as they identified this dilemma and tackle with it positively, not only they were able to limit it but rather they may reverse it into brain gain.

In this writing, I would like to provide necessary understanding of this important factor, international migration of the brains, and how to gain them back through thinking about policy initiatives so that my country, Iraq, can successfully gain brains in the future. Specifically, I want to accomplish two things. First I would like to review theoretical literature on the subject to understand the brain drains. Second, I would like to suggest possible policy analysis that derived from Korean strategy would be helpful in outlining Iraq's future development goals in gaining brains back.

Moreover, this paper consists of number of major parts. In the next section, it talks about the Iraqi case, showing through statistics, numbers of assassinated and migrated brains, also those who exposed to terrorist attacks or threats. Then, this paper has general discussion of the Korean brain drain that occurred following Korean war and how the Koreans succeeded in reversing this phenomenon.

Finally, the paper suggests to Iraqi government some steps to overcome brain drain. Then, focuses on Korean successful experience in this field, and proposes to utilize from its experts in a way that may Iraq reduce that move.

## **I. Literature review**

### **a - Definition of brain drains**

'Brain drain' is the departure of educated and talented persons to better economic or professional environments, seeking for good payment or jobs, or even settlement for them and their families. In history, the most prominent phenomenon of brain drains was from countryside to metropolitan areas. 'In the 19th century and 20th century there were great migrations to north America from Europe, and in modern times, from developing to developed nations'..<sup>2</sup> normally due to quarrel and political instability, lack of opportunities or lack of safety that threatens their lives and health risk. That is why we find developing nations are familiar with brain drain. Also, brain drain occurs in countries of centralized economies where the skilled and professionals were not rewarded in a way that satisfied them such as 'the former East Germany and the Soviet Union'..<sup>3</sup> Sometimes it happens between developed nations, seeking the best in different things; healthcare, welfare, and business, getting good wages and paying little taxes 'such as the migration from Canada to the US'..<sup>4</sup>

One may wonder who invents this expression 'brain drain!' 'A spokesman for the Royal Society first invented this expression 'brain drain' to describe the outflow of scientists and technologists to the United States and Canada in the early 1950s..'..<sup>5</sup> Then, the expression 'brain drain' started to be recognized during the sixties of the last century, when a good number of British brains migrated to the United States looking for better jobs. Some recent studies considered the brain drain costly and affected the economy of the sending countries, since those brains when they leave their homeland they have the part of price located for their

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2 - see: <http://society.gourt.com/Issues/Immigration/Brain-Drain.html>

3 - [http://www.amazines.com/Brain\\_drain\\_related.html](http://www.amazines.com/Brain_drain_related.html)

4 - <http://society.gourt.com/Issues/Immigration/Brain-Drain.html>

5 - [http://www.interbiznet.com/bugler/bugler\\_06.04.14.html](http://www.interbiznet.com/bugler/bugler_06.04.14.html)

training funded by the government. So, it is just like the capital flight in which the sending country gets no asset from the brains that leave it.

So, one could say that brain drain phenomenon is a re-producing of underdeveloped world. Thus, the developed world by attracting scientists and talents that are able to develop their sending country on all levels, instead these brains contribute in boosting the economy of the developed world, leaving their homeland with no progress.

### **b. Theories about brain drain**

Imagine a world with no borders, and everybody can move the place and country he want, no checking points and no visas. How the migration movement would be?

There would be two statuses, as Jeronimo Oliveira Muniz says in his essay titled "Where is my brain going", in the developed countries, there would be a massive rush of immigrants looking for better jobs and best living. Both, good and bad people would come in; professionals, skilled, and rich with unskilled, criminal, and poor people would arrive too, constituting a heavy burden on developed states. Everything in such country would be highly priced. The competition in employment, education, transportation and every field of life would be unbearable, and there would be decay in every standard of living. And as for developing and less developed states, migration would help them easing their social burden and improving their economic status, since the migrant may transfer some of his fund to his country. This is the first situation, developed states are the losers and developing countries are the winners. While the second situation considers another event, as the brains and other migrants are tremendously talented, highly educated and intend to stay abroad after getting PhD and in that case developed countries will win because they have enough expertise that boost the country forward, the sending countries will lose due to the cute shortages of expertise and skills that occurred due to migration.

'When less developed regions uncontrolled export human capital, they are not only sending away their chance of catching up to developed regions in terms of technological progresses and step forward scientific improvements, but they are also losing important opportunities to create excess effects in the economy'..<sup>6</sup> It is something essential to identify reasons behind emigration and how to keep the brains in their homelands, and on top of which, what should the governments do to attract these brains to come back and work again in their country.

### **c. Why leaving homeland?**

One wonders why people in general, and the brains in special, leave their homelands and immigrate to another country. Is it for political reasons or economic ones? What they are looking for? Is it money or settlement or both or even none of those reasons? If it is for money, then why the economic status among countries is not the same! Education answer part of that question, thus, by improving schooling chances, then, standard of living would be improved and incomes in developing countries could be increased as the economic theory says...see..<sup>7</sup> However, there is no doubt that many brains leave their homelands in less developed states heading for Europe or US because of the welfare in these states are high. So, to invest in education in those countries may not improve the economic status in case that their countries do not benefit from these brains since they left their homelands.

Overall, there are many factors contributed to the growth of this phenomenon in any country, including: economic crises, political instability, wars and conflicts, the absence of democracy, unemployment and poor services. Adding to those, the lack of interest in developing scientific researches, and the absence of academic freedom in universities and

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6 - [http://www.ssc.wisc.edu/~jmuniz/Where%20is%20my%20brain%20going\\_muniz.pdf](http://www.ssc.wisc.edu/~jmuniz/Where%20is%20my%20brain%20going_muniz.pdf)

7 - <http://www.libyaforum.org/english/index.php?option=content&task=view&id=1928&Itemid=30>

higher education institutions and research centers, a matter that deprive the brain from creating, constructing, and accomplishing their ideas and theories. Talents and brains have suffered and still suffer from the absence of academic freedom and the scarcity in the number of research centers, forcing brains to leave the country and go abroad.

**Figure # 1 Geographical location of Iraq**



## **II. The Case Of Iraq**

### **a. Country's Profile Overview**

Iraq is located in the Middle East. It is bordered by Iran to the east, Jordan and Syria to the west, Turkey to the north, and Saudi Arabia and Kuwait to the south. Its total land area is about 438,317 square kilometers (169,235 sq mi)<sup>8</sup>. The official language of Iraqis is 80% Arabic and 15% Kurdish. By the end of 2006 the population of Iraq

was estimated at 26,783,383.<sup>9</sup> and there may be a new estimation by the end of this year, 2011. The estimated overall population density is 51 persons per sq km (131 per sq mi).<sup>10</sup> The population of Iraq, whose capital is called Baghdad, is 75 percent urban.<sup>11</sup>

### **b. Stages of brain drain in Iraq**

The most important stages that characterized the "brain drain" in Iraq are:

First stage, which extended from 1963 to 1970. During this phase the critical political

8 - <http://www.arab.de/arabinfo/iraq.htm>

9 - <http://www.mapsofworld.com/iraq/iraq-population.html>

10 - [http://members.tripod.com/al\\_3irakia/populati.htm](http://members.tripod.com/al_3irakia/populati.htm)

11 - <http://www.arab.de/arabinfo/iraq.htm>

and ideological conflict in the country drove the scientific talents to leave Iraq. Also, the openness abroad spurred talents and expertise to try new globe to improve their scientific ability in a better environment.

Second stage: starting from 1980 until 2002. This phase is characterized very significant deteriorating of economic conditions due to 8 years of war with Iran followed by 12 years of economic blockade, that caused a humanitarian and economic agony unmatched in the world. It frustrated Iraqi people in general and the scientific elite, in particular. All these reasons and others have formed the main factors driving the migration of the majority of Iraqi brains.

Third stage: started from April 2003 until 2007. Following the 2003 war, the country were in a political, security and economic disorder, especially since mid-2004 until mid-2007, which intensified sectarian conflict so much, leaving all its negative impact on the scientific elite. Iraqis witnessed a harsh campaign targeted doctors, professors, and other expertise regardless of their sectarian or political attitudes, a matter that forced them to leave Iraq, leaving behind the biggest loss of brains that cannot be compensated at the present time. Thus, the critical period following 2003 war the country have witnessed the departure of millions of its educated people seeking for safety and better living.

Brains that are leaving the country in Iraq since 2004, because they are to be beleaguered by terrorists are increasing day by day. 'A phenomenon that is resulting in an unprecedented brain drain as those who can move abroad increasingly do so before they or their families join the list of their colleagues killed or kidnapped..<sup>12</sup> that is every day doctors receive threatening messages from terrorists or even parties ordering them to leave their jobs and rather leave the country or else they would subjugate to death. But why they are targeted ? that is the question. Is it an attempt to spread fear among Iraqis and undermine the rule of law? Or because of governmental parties' disputes or sectarian tendency?

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<sup>12</sup> - <http://www.brusselstribunal.org/pdf/AcademicsDossier3.pdf>

Brendan O'Malley<sup>13</sup>, who prepared a report for the United Nations for higher education in Iraq in 2007, believes that, "Sunni extremists attacking the Shia scholars and the opposite is also true, some stalks of scientists who belong to the ex-ruling Party and others chasing opponents of the party in question, all of which enhance the feeling of a campaign to eliminate scholars of Mesopotamia." O'Malley, in his report, mentioned that at least 3,000 university professors have fled Iraq as a result of fear.

It is really deserved to be considered to think about how could a society left without knowledge, how can such a society make progress? How to develop and grow then when the best and brightest consistently set out searching developed countries and leaving their homeland which is badly in need of them. How to build a country that suffers from destruction of its infrastructure everywhere while its engineers leave it behind!

### **c. Iraq's brain drain due to statistics**

Statistics taken from the studies conducted by the Arab League and the Arab Labor Organization, UNESCO and some international and regional organizations concerned with this phenomenon to the following facts:

- That 50% of physicians and 23% of engineers and 15% of the total drain of scientists from the Iraqi graduate migrate on their way to Europe and the United States in particular.
- That 54% of Iraqi students who study abroad do not return to their country.
- That 12% of all doctors working in Britain were Iraqi ones.

According to documents and statistics made by researchers find out that to study and be a doctor then graduated from Medicine College in Iraq you cost the Iraqi budget more than \$ 45000, this means that the existence of 2000 Iraqi doctors working at British hospitals cost the state treasury of Iraq more than 100 million US dollars.

In a study made by the Atomic Energy Organization of Iraq in 1989 showed that a student

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13 - [http://www.unesco.org/education/interviews/educationunderattack\\_en.pdf](http://www.unesco.org/education/interviews/educationunderattack_en.pdf)

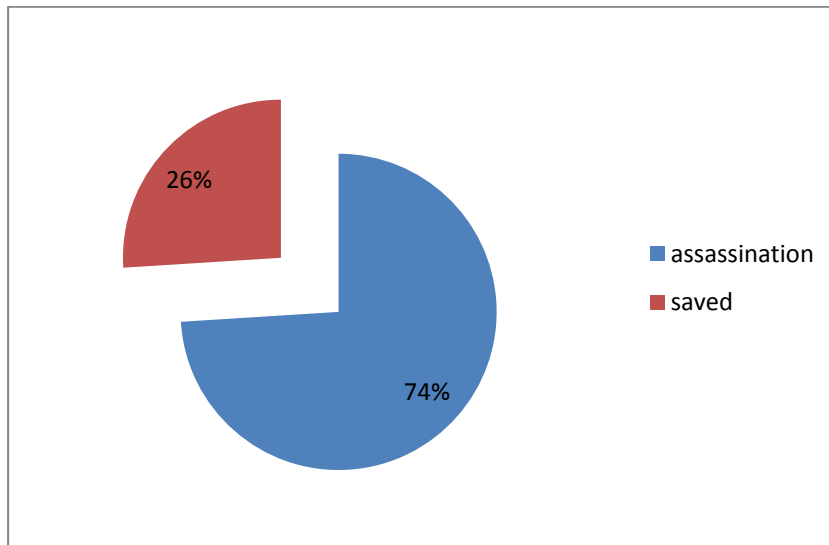


who gets a PhD in Sciences and Technology costs the Iraqi budget about \$140000. Another study by the Ministry of Sciences and Technology confirmed the immigration of 17500 brains who have master degree and 7500 who have PhD cost more than \$4550 million US dollars, meaning that Iraq provided the receiving countries up to 3425 million US dollars, adding that those expertise and brains cost them no time, moreover, they gain about 15-20 years. For example, to compensate for migration of 100 doctors in Iraq, that need a long period, almost 20 years, to pay costs such shortfall.

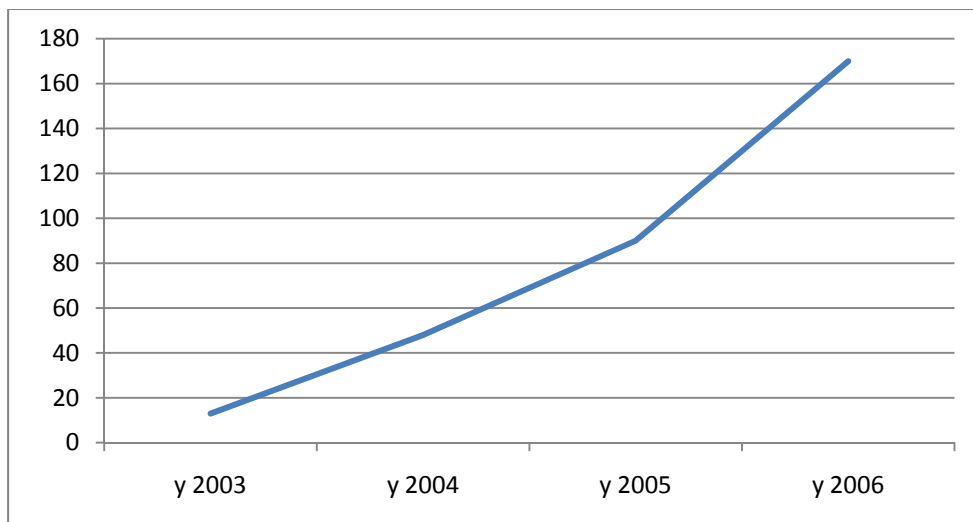
In his research "intellectuals' immigration" in 2008, Dr. Dhaher Muhammed, Iraqi researcher, said 'during the period 1991-1998 more than ۳۷۰۰ Iraqi brains left for US, Canada and Western Europe.' And the era following 2003 witnessed immigration of at least 3000 professors at Iraqi colleges, and 10% of the Iraqi doctors, amounted 32000, left at the same period! Those terrifying numbers of immigrants proves that Iraq is suffering a great deal. Circumstances in Iraq are expelling and not attracting brains or scientific efficiency. By that Iraq has deprived from its right to benefit from the expertise of those brains at a time Iraqis are badly in need of such expertise to develop the country.

According to a report titled " Plight of Iraqi Academics" presented by the Iraqi scientist, Dr. Ismail El-Jalili at the International Madrid Conference in 23-24 April 2006, concerning targeting Iraqi brains, the report shows that about 730 Iraqi doctors and 530 scientists have been murdered only in 2006, of course due to the critical situation and instability in Iraq at that exact date.

**Chart # 1 Number of recorded assassination attacks on academics only in 2006**

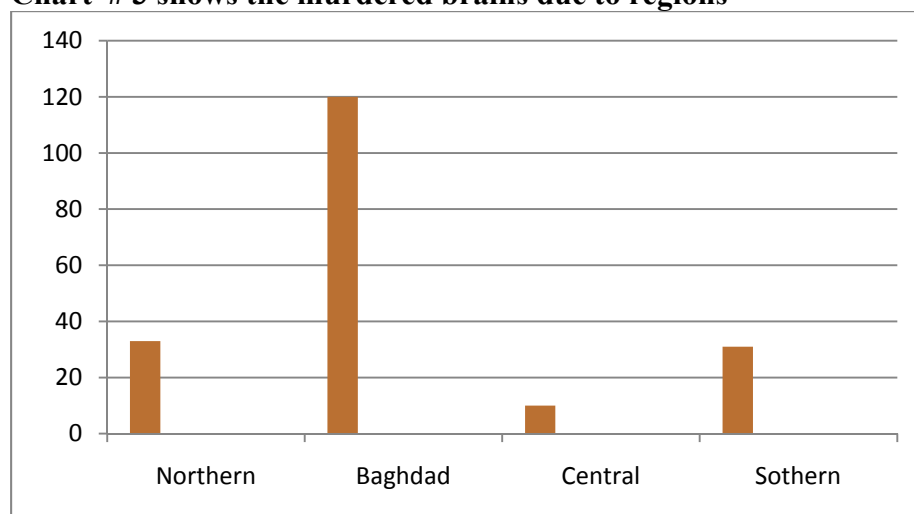


**Chart # 2 Annual increases of only the recorded assassinations starting from 2003 to 2006.**



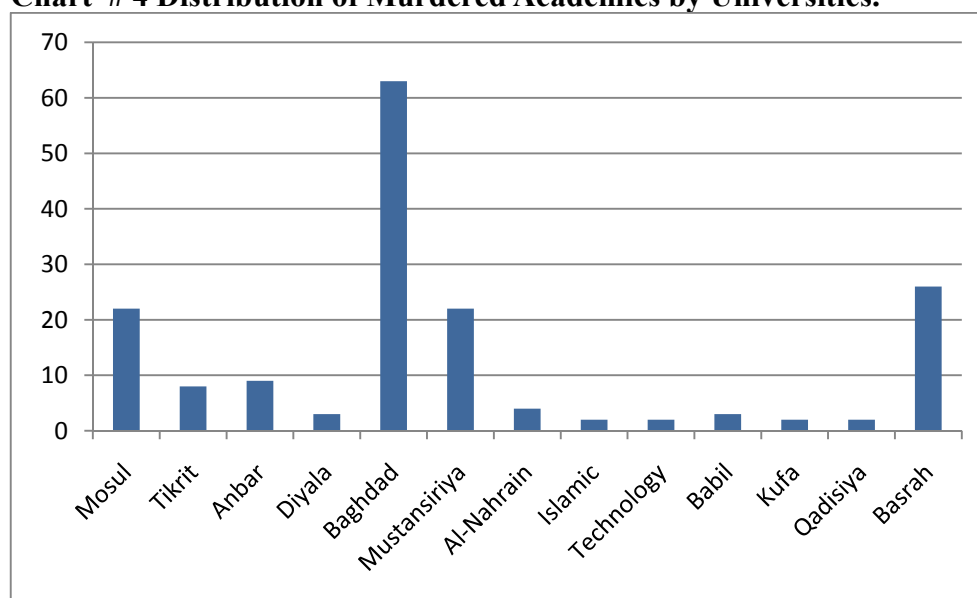
And in a survey made by the Migration and Displacement Ministry, it showed that the assassination, from 2003 to 2010, among doctors, professors and scientists in Baghdad reached its peak.

**Chart # 3 shows the murdered brains due to regions**



The distribution of murdered Iraqi Academics at Iraqi universities from north to south for the years 2003-2010 shows that Baghdad, Basrah, Mustansiriya, and Mosul Universities are the most targeted ones..<sup>14</sup>

**Chart # 4 Distribution of Murdered Academics by Universities.**

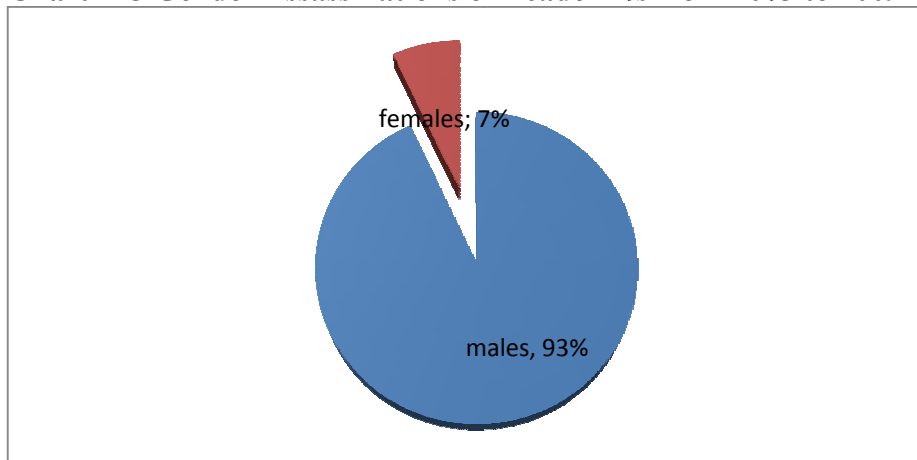


And according to gender of assassinated Iraqi academics a survey done, by the researcher with the help of the Ministry of State for Woman Affairs, from the period April 2003- April

<sup>14</sup> - [http://www.iraqsnuclearmirage.com/Media/Plight\\_of\\_Iraqi\\_Academics.pdf](http://www.iraqsnuclearmirage.com/Media/Plight_of_Iraqi_Academics.pdf)

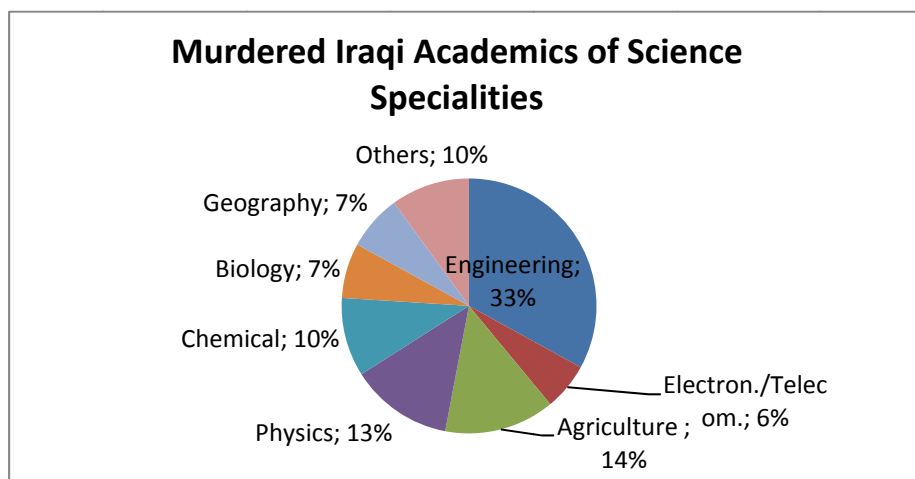
2009 showed the high rate among males in comparison with females.

**Chart # 5 Gender Assassinations of Academics from 2003 to 2009**



Another statistic made to see the main fields of specialization of those assassinated Iraqi Academics. It found out that:

**Chart#6..**<sup>15</sup>

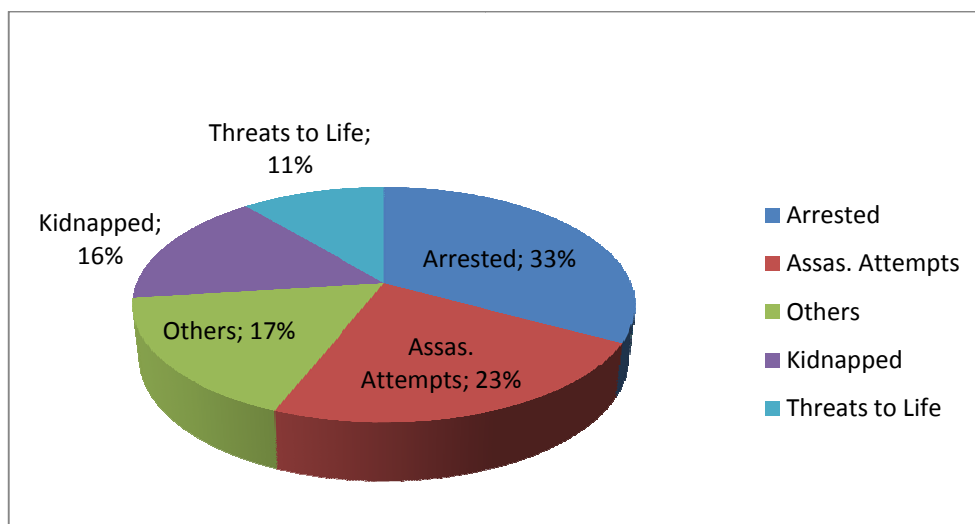


Statistics show that the murdered and kidnapped professors at colleges reached an unimaginable number. According to Academy of Refugees Aid and British consulate in London, 98 Professors have been killed only at Baghdad University! Notice how that number

<sup>15</sup> - [http://www.iraqsnuclearmirage.com/Media/Plight\\_of\\_Iraqi\\_Academics.pdf](http://www.iraqsnuclearmirage.com/Media/Plight_of_Iraqi_Academics.pdf)

is horrifying! The UNISCO in a report released at mid of 2007 says that since 2003 more than 2300 Iraqi researcher and academic left their country due to threats of killings and kidnappings or even arresting.

**Chart # 7 shows rates of types of threats on Academics** ..16

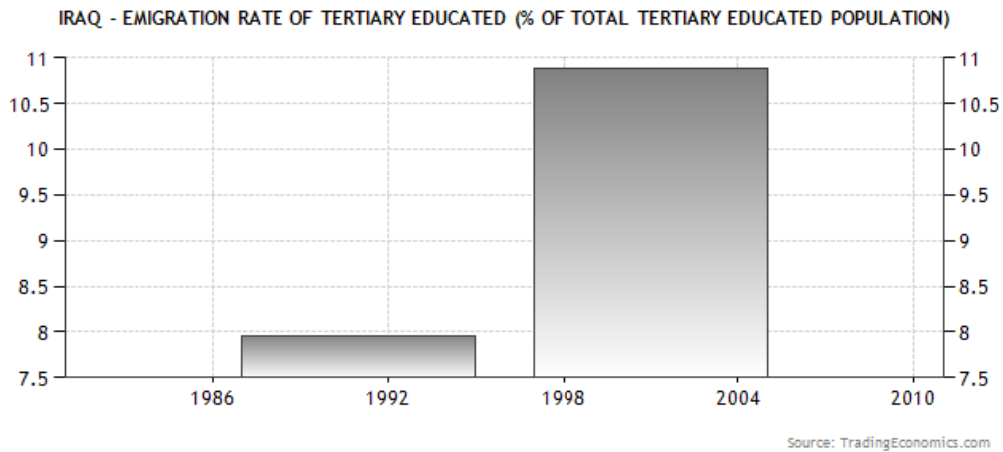


And still, that flow of Iraqi brain drain increasing despite the simple improvement in the security status in the country and despite the outsider obstructions put by overseas; The Washington Post in its issue released on 13<sup>th</sup> of July 2011, indicated that due to security concerns in the US, the immigration process for tens of thousands of Iraqis who have worked for the US government or American firms in Iraq (of course most of them have higher education) and hope to move to the United States, have been hindered, the Washington Post said adding, there is a special program intended to distribute 25,000 visas to Iraqis who worked for the US government has affirmed just 7,000 since it started in 2008. The US Refugee Admissions Program, a global program that also admits Iraqis, will admit about 6,000 Iraqis this year, down from 18,000 in fiscal 2010. Refugee advocates said thousand Iraqis were granted entry to the United States through the programs in previous months, a matter that proves the drain of educated people from Iraq, despite the hindering of that flow.

16 - [http://www.iraqsnuclearmirage.com/Media/Plight\\_of\\_Iraqi\\_Academics.pdf](http://www.iraqsnuclearmirage.com/Media/Plight_of_Iraqi_Academics.pdf)

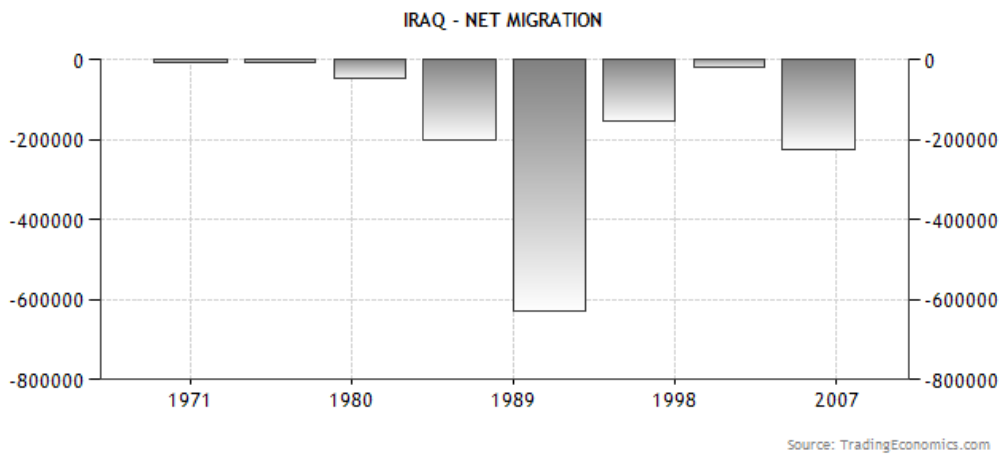
According to the chart, available at the worldbank.org site, it shows the emigration rate of tertiary educated population in Iraq.

**Chart # 8**<sup>17</sup>



Another chart due to the tradingeconomics.com source indicates the Net migration in Iraq. ..<sup>18</sup>

**Chart # 9**



"Terrorism is targeting Iraqi professors and scientists in way that have never been witnessed before 2003", it is so hard to say that there is a higher education in Iraq today,

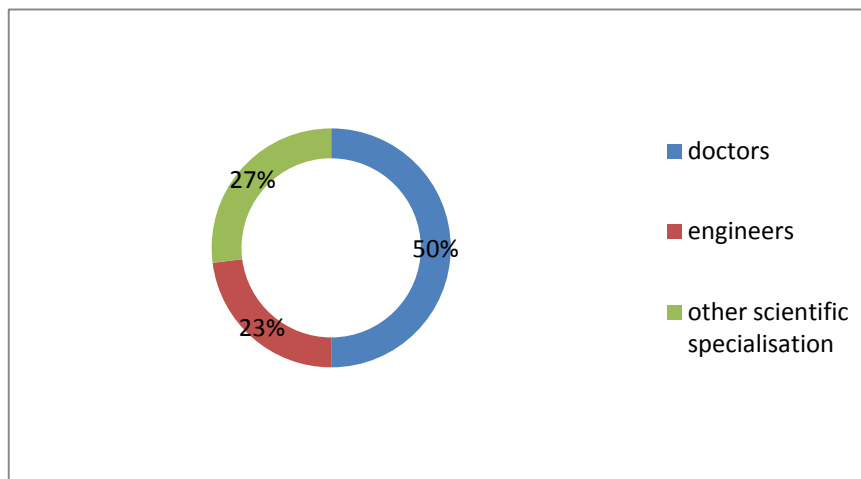
17 - see the site: [http://data.worldbank.org/sites/default/files/countries/en/iceland\\_en.xls](http://data.worldbank.org/sites/default/files/countries/en/iceland_en.xls)

18 - <http://www.tradingeconomics.com/iraq/net-migration-wb-data.html>

especially with that horrible number of regular daily assassination and kidnapping among professors and students. Each day in Iraq carried different kinds of horror.

In a speech by spokesman for the health Ministry in 2007 stated that more than 1800 doctors have been assassinated and nearly 4000 ones left abroad. In an attempt to see to what extent the brain drain in Iraq reached, some researchers and social society organizations and parties concerned arranged statistics to find out that about 50% of brain drains were of specialized doctors and professors who taught at medicine institutions. More than 23% were of engineers and 27% in other scientific specializations that represent the scientific base of the country.

**Chart # 10 Rate of Main Fields of Iraqi Brain Drain**



#### **d. Questionnaire**

Information below is based on a questionnaire done by the researcher on estimation of 50 professors, assistant professors, doctors, engineers and lawyers, left Iraq and migrate, since 22 February 2006, a time that terrorism reached its peak.

**Chart # 11 Questionnaire on 50 migrated Iraqi brains**

Reasons for migration		Reasons for Being Personally Targeted	
Governorate armed conflicts	0.1	Governorate ethnic group	0,02
Direct threats to life	0.52	Political opinion	0.08
Forced displacement	0.22	Religion or sect	0.84
Generalized violence	0.1	Social group	0.04
Left out of fear	0.06	Not personally targeted	0,02

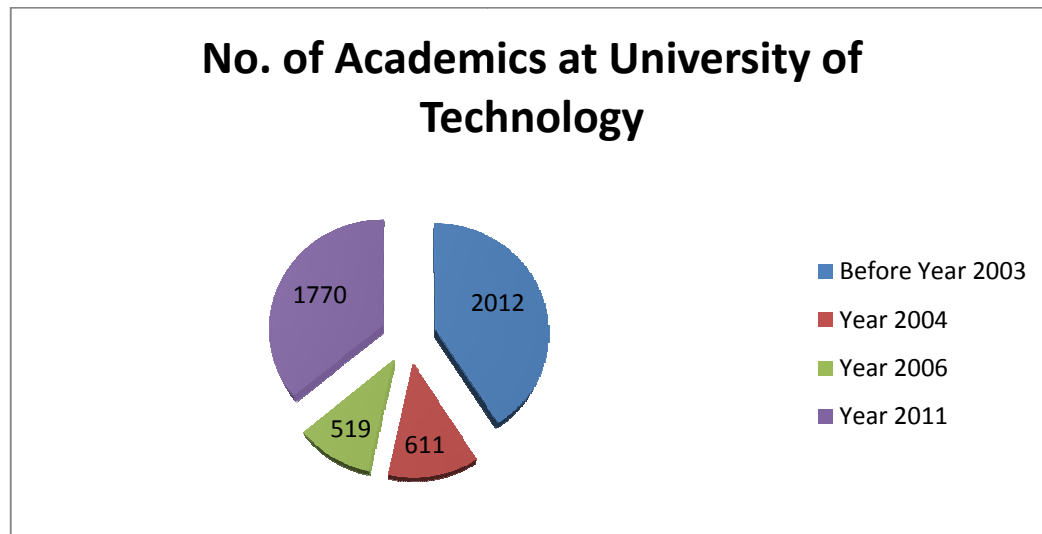
Then, the researcher took one university out of five main universities in Baghdad, the capital of Iraq, and made a comparison between professors, assistant professors, teachers, assistant teachers and lecturers of the University of Technology along the years to find out the volume of the loss among those brains. Before 2003 they were about 2012 professors, assistant professors, teachers and assistant teachers, and lecturers. Another statistic made by Dr. Moayad Y. Khedhair.<sup>19</sup>, in his PhD thesis, found that number shrink to 611 academics at the University in 2004. Again this number minimize to 519 in 2006 (the year that Iraqis live under terrible circumstances of terrorism, including targeting academics everywhere there, instability and chaos).

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<sup>19</sup> -Professor & Director General of the Central Library of the University of Technology, Baghdad



**Chart # 12**



Following year 2008 that number increased, of course, but at the expense of efficiency and qualification of teachers, since the majority of Professors, Assistant Prof., Teachers and qualified lecturers remained abroad, and those who replaced them tried their best to be in the same sufficiency and professionalism and experience. Now the number reaches about 1770 professors, assistant professors, teachers, assistant teachers.

### **III. Taking case of Korea as a sample to follow**

Despite the clear current difference of the real reasons of this phenomenon between Iraq (because of terrorism besides the economic states as a result of sanctions for the period 1990-2003 and instability that followed), and Korea, which is mainly related to economic factors beside other below shown reasons, but Iraq is moving toward settlement and the next stage is to take fruitful steps in hindering the migration of talents and highly educated people through bringing a shining model country, Korea, and follow what it did to come out with least loss of brains.

If one looks at the Korean history according to the brain drain issue, he can find that it has been fluctuated many times to reach an opposite stage of brain drain to brain gain but again

the economic status in addition to psychological impacts plays a vital role in taking migration decision of Korean scientists and engineers.

During the late 1980s and early 1990s, it became evident that the job prospect for US educated PhDs weaken as the number of US educated PhD grew rapidly. More graduate students then wanted to stay in Korea for their PhD in order not to lose contact with the professors who could be helpful in securing teaching positions. Also, the quality of faculty and graduate education in Korea improved considerably due to the quality of the new faculty and the establishment of graduate and research oriented universities. As a result, the relative attractiveness of pursuing a PhD in Korea increases significantly over time. At the same time, the Korean government provided military service exemptions to those who pursue graduate education in Korea. Because of all these factors, the number of graduate students and PhDs awarded in Korea has risen quickly since 1985. That is, the number of PhDs awarded in Korea was only about 400 in 1970 while in 2003, the number of PhDs awarded in Korea has increased to 7,623..<sup>20</sup>. All these factors participate in reversing the brain drain into gain.

Korea's successful experience, that might Iraqi government notice and consider, could be explained in few words; fast growth of production capacity through heavy investment in capital goods and social infrastructure, stable governments, high domestic savings rates, a disciplined work, and well-timed government-led economic policies have been often cited as the major determinants of Korea's high growth rates that motivate brains abroad to come back. Especially, when we know that along the years the Korean economy growing quickly, a matter that strongly demanded such brains, since all society need talents and brains for its leadership positions.

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20 - Sunwoong Kim. December 2006. Brain Drain, Brain Gain, and Korean Global Brain Network A Critical Literature Survey & Agenda,

### **a. Historical background**

Korea has a deeply Confucian belief that man become almost perfect through education and the educational ability has become the best standard of a man's value. So we find the Koreans, in general rush to have high levels of education for themselves or for their children. Every year thousands of students graduate from universities. The government of Korea has tried its best to accomplish amazing improvement in facilitate education for the Koreans. Thus, the literacy rate reached highest percentage. Koreans are among the most educated people of the world..<sup>21</sup>. Both the people and the government worked together to reach this great rate of literacy, because they realized the key factors behind achieving progress and catching with the more developed world.

Something worth to be mentioned here, that US universities are the places where Koreans want to have their education and degrees. The reason is that Korean companies and/or schools still prefer English to Korean bilinguals, due to globalization, and admire US top (like Ivy League schools) school's diploma. So, their educated people started leaving the country from collage, then by catching a nice job there it becomes difficult for them to return back home, leave all these privileges abroad, and convinced with what they will obtain in their homeland.

Of course, there are great universities such as SKY (top 3 schools in Korea: Seoul national, Korea, and Yonsei universities) that will lead graduates to find good job in Korea. But, due to limited nice jobs openings and its competitiveness and requirement for English speaking skills, Koreans tend to leave their country to English speaking country for language learning or degree earning. US, New Zealand, Australia are the top choices, and US is the pop of the top choices for Koreans. The tuition rates are high... but Koreans pay so much money in Korea to learn English in academic institutes throughout school years from K-12 and even

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21 - <http://education.stateuniversity.com/pages/1407/South-Korea-Summary.html>

in college;.. so they prefer to go abroad to earn their degree with such high tuition that may be a little more or equal to the total amount of money they would spend for English education if they stay in Korea. So, it's because of English... and the name value of colleges. Also, Koreans want to work in global companies, but, Koreans find it difficult to be hired or promoted in the global companies unless they can speak English..

Definitely, Some of Korean brains who have higher education abroad, or to be precise in the US, want to hold US citizenship because it will help them to get into global companies relatively easier than without US citizenship. Thus, they settled there and make families in the aim of having children in the US to give the babies the US citizenship, in this reason, it's the reality in the world now, that still English speaking and global top companies are the priorities for some people. Also, most of professors in Korea hold PhD in the US or England. Majority is from the US, which means, whether those professors held SKY degree from Korea or not, they still went for Ivy League schools for their PhD degrees at least.

Because it's a notion in Korea that still many believe education is better in the US. It is also visible when you look at the world university rankings.. top schools are in the US mostly, and Korean schools are not at the top. So, because Koreans admire good schools and higher degrees, they want to get into the US Ivy League schools in their lifetime. So, you now can imagine why many Koreans try to work or study in US. After all, how would those who spend all these years abroad and get use to the atmosphere and habits and standard of living there, how could they come back home! Definitely, they needed honest intention beside the hard work from the government to attract and that what exactly they did to surmount this problem.

#### **b. Korea, according to statistics of experiencing brain drain**

Following the end of the Korean war in 1950s, most of the Korean talents left the country and migrated to European countries and US, adding to that the closed nature of Korean

society discouraged foreign skills and talents to come to the country, also coinciding by the low birth rates, a matter that urged the appearance of brain drain phenomenon in that country. This phenomenon continued along the years followed until the early nineties (1992-1995) only 20.2% of brains remained overseas permanently.' 'The International Institute for Management Development (IMD) in Switzerland publishes an annual Brain Drain Index, which showed South Korea with a ranking of 7.53 in 1995, where a score closer to 10 indicates less danger of brain drain'..<sup>22</sup>. thanks to the Korean economic boom at the time.

However, during the late nineties and following the Korean crisis in 1997-1998, more than 300,000 Korean people migrated to US..<sup>23</sup>, a number that cannot be ignored. The period 2000- 2004 showed that 46.3% - 73.9% of South Koreans who got PhD degree in US intended to stay there..<sup>24</sup>

### **c. Is the solution to bring brains from abroad?**

One of the well known factors that contribute in pushing the economy of any state forward is the talents and skills of its people. So, it is important to gain as much talents whether they are from that country or even from abroad. For Korea, despite being somehow a closed society, but, following the economic boom it witnessed openness to the out world. It started to follow the more advanced states' experience in the field of dealing with foreign talents and how to encourage them to reside in these countries. Korea resort to ease its migration system, which was disappointing, for foreigners and make it more flexible to allow foreign brains to stay in Korea. It indulges in sponsoring brains, preparing advanced training programs that attract foreign brains in addition to domestic ones.

One of witty and prominent examples taken by a country concerning this issue is

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22 - <http://workpermit.com/news/2007-06-06/south-korea/brain-drain-immigration-reform.htm>

23 - Carrington, William J. Detragiache, Enri. June 1999. How extensive is the brain drain?", Finance & Development

24 - <http://workpermit.com/news/2007-06-06/south-korea/brain-drain-immigration-reform.htm>

Singapore. It resorted, in 2008, to implement a new system, allowing any graduate or even student from an advanced country to have a working visa..<sup>25</sup> Many countries took similar procedures to attract brains and South Korea is one of those countries which realize the importance of gaining brains back and attracting foreign , so, it implement a new policy in an attempt to attract brains everywhere. Yet more efforts needed to be done to catch up with more advanced states.

#### **IV. Motivations for migration**

To find solutions for this phenomenon, we should know first why migrants in general and brains in particular leave their countries. One would say they do so to improve their living by getting better chances of employment and even if it took long time until they get good job. Or they may migrate to improve their knowledge, since their country discourage and denies their talents .they are like a sort of an adventurers ,thus they gamble with their future heading for other country to flee from unjustness politically or economically. All these factors are in the mind of the Iraqi migrant as he decide to leave heading abroad.

In general, there must be three main reasons that motivate brains to migrate; First: Political reason: political state in Iraq is very unstable, as what is explained and approved above by statistics. The above mentioned data about Iraq shows clearly the incentives that push Iraqis to migrate, which stands as an evidence that the political status in any country is a driving factor that helps increase or reduced migration to or from that country.

Second: Economic reason: anyone knows that the economic state in any country reflects the political status in that country. In Iraq, chaos and instability leads to the decay in economy even though Iraq has good wealth of different minerals and on top of which is oil,

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25 - <http://workpermit.com/news/2007-06-06/south-korea/brain-drain-immigration-reform.htm>

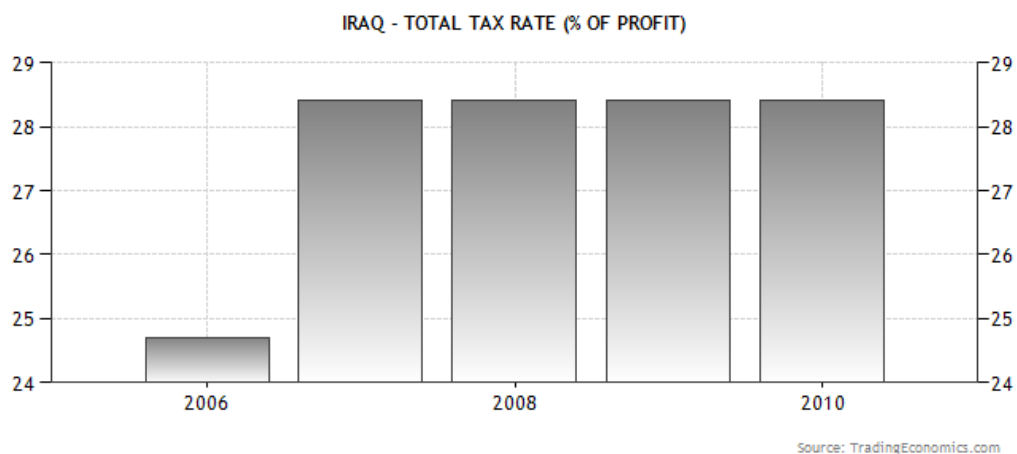
(according to world data, Iraq has the second largest reserves of crude oil in the world), and Iraq's economy is depended mainly on oil, 'which provides over 90% of government revenue and 80% of foreign trade earnings'..<sup>26</sup>. However, three decades of wars and blockades Iraq passed by, caused decay in the country's wealth.

Third: Sociological reason: The welfare of any country reveals how developed and progressed it is ; and a small look at a country like Iraq, we could see how it is deprived from the simplest necessities of life, due to the critical circumstances of the country.

One more important factor that enlarged the volume of migration is taxes. One of the grave factors that derived brains to leave their homeland and also hindered the gaining of foreign brains is the load of taxes.

In Iraq the total tax rate was reported at 28.40 in 2008, according to the World Bank. In 2009, the Iraq total tax rate was 28.40.

**Chart # 13**



26- <http://www.tradingeconomics.com/iraq/labor-force-total-wb-data.html>

Other expelling talents and expertise factors in Iraqi society is the decay of the technological development and researches systems. And the reasons for that failure are political, economic, human and administrative ones:

The political reasons are neglecting the economy that based on knowledge, and instead it is based on political interpretation, political instability and continued conflicts, and ignoring the global development technology. The economic reason is the poor allocations for launching a huge technological, scientific development projects. And the human reason is the lack of enough efficient and innovative leaderships, poor training courses and trained human resources. Finally the Regulatory administrative reasons are the bureaucratic administrative structure, administrative and financial corruption, and the least efficient is responsible for managing and planning, and the most important one is the rigid management systems, treating everyone the same scale and does not encourage the distinct to give more, and the shortage of scientific labs and equipments needed for researchers.

The developed countries provide the talents with the most advanced scientific environment, and all means that help achieving the talents' scientific ambitions, a matter that motivates those talents with further research and development and increased experience with the working conditions in developed countries.

#### **a. Different ways in different countries to keep brains at home**

Some countries of the world resort to weird means to prevent migration. 'As for China in the 1990s, the government put restricted rules for those who migrate not only abroad but also from rural areas to the cities, seeking better opportunities. They must have city work permits, which can cost from \$6,000 to \$12,000, otherwise, they can be sentenced to three- to six-



month terms of work in prison factories..<sup>27</sup>. And as for Iraq during 1980s to the end of nineties, the government prohibited its scientists, PhD holders, engineers, doctors and even teachers from leaving the country, thus the scientists and talents or educated people used to change their qualifications and take the risk of fraud in their passports being businessmen or workers rather than scientists, professors or doctors to be able to leave abroad and migrate. Yet, such dictatorial governments cannot be applied in the world of today. Nothing could be approved by force and if a country's policy intended to attract its talents, it has to offer them all the facilities they need to stay in that country, including putting them in the right position and job that suits their qualifications and talents, better welfare and living conditions that were compatible with those offered in more developed states, and appreciate the brains and evaluate them as they deserve and only at that moment, no reason remain for them to leave.

Governments could adopt different policies to limit brain drain. Korean government, and from the starting of this phenomenon in Korea, put its fingers on the wound (as the Iraqi parable says) and focused on sending its talents and skills abroad for high education and having experience in their specialization and urged them to return home by offering different privileges and procedures, which were not easy and needed long time to establish these kinds of services and opportunities, but it is not impossible. Thus, it tried to return brains back during the sixties and seventies of the last century. But, the success of policy procedures at that time was limited and only improved when the economic boom occurred many brains came back to their country. 'South Korea has managed to regain almost 40% of its migrated scientists , and increased national income of South Korea for the year 1982-2005 to reach 712%!'..<sup>28</sup>

These strategies, still, do not tackle the problem of reducing brain drain from countries that has conflict and political instability, like Iraq. It has no plan and no tactic to get back its

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27 - [http://www.ssc.wisc.edu/~jmuniz/Where%20is%20my%20brain%20going\\_muniz.pdf](http://www.ssc.wisc.edu/~jmuniz/Where%20is%20my%20brain%20going_muniz.pdf)

28 - <http://www.almasry-alyoum.com/article2.aspx?ArticleID=36254&IssueID=480>

talents. All what the government did in the past years was just poor attempts that disappointed the brains who came and shocked by the bitter reality and routine in official offices, thus, their Master and PhD's degrees, from abroad, were not approved. Hence, the government faced the dilemma that talented brains left Iraq because they feel unsafe and their talents and skills were not appreciated. 'Before 2003 around 4 million people are thought to have left, among them a significant number of Iraq's top professionals. Just after the 2003 war, some talents did return, but more than two years on the country's brain drain, far from being reversed, is continuing at a rate that is alarming many Iraqis.'<sup>29</sup>

Therefore, even doubling of salaries for University teachers in an attempt to keep them in the country doesn't solve the problem.

Great number of intellectuals; doctors, professors, engineers, and judges have been either killed or threatened or fled. Iraqi intellectuals are being deliberately and systematically targeted to prevent them from helping the country of emerging to peace.., and as a result, keeping Iraq far away from settlement and development.

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29 - <http://baghdadee.ipbhost.com/index.php?showtopic=465>

## **V. a. Summary and Conclusion**

It seems that Iraq is experiencing the critical migration of brains. And, targeting the intellectuals is part of a well designed campaign to deprive the country from developing. Who behind these destructions? Definitely, every honest citizen in this world knows, but who listen or cares about Iraqis' grave status they have reached?! As long as they can have oil freely and with no restrictions, they are keen on keeping Iraq live in this chaos.

But, let us assume Iraqis live in peace, thanks to the new policy taken by the government of Iraq, and then this government needs to follow certain process to retain Iraqi brains from abroad.

Since the existence of human beings, they start their life with imitation, from learning how to speak, then, becoming professors or professionals, till passing by. Things go like that; first you learn, then you imitate and finally you become professional in what you are dealing with, and even you invent and create. Thus, you can overcome your faults and obstacles through getting a useful lesson from such rich experience not only from its bright fruitful sides but rather from its negative aspects.

Hence, what the society needs to do is that to try to make sort of a copy of the receiving country and apply it in the homeland through imitation. So imitation is the best solution towards the steps of gaining back the brains. What we have to do is to exert efforts to establish environment or at least transferring the most attractive atmosphere and circumstances that impress them that much of America, for example (since the majority of brains headed there) to the sending brains' countries. Since most people are fascinated by the life in America, being a welfare state, so let's do it. Both the government and people are responsible for achieving that goal. It isn't an easy task but is not impossible.

The government has to reach the migrants to financial sufficiency to be their payment competitive to what they get in receiving countries. And putting an end to unemployment,

which is one of the main factors behind migration.. The unemployment rate in Iraq started to be significant from the year 2004 and increased rapidly to reach incredible numbers in the following years, but the unavailable data prevented from signifying the exact number...<sup>30</sup>

### **b. Recommendations**

In determining the means by which the Iraqi government can take to attract migrant brains to come back home, some general factors should be understood, that link the mind of the Iraqi migrant with the western world and make him feel satisfied with his living overseas. These factors are;

-Economic factor; providing high salaries and lowering taxes are of the most important attractions, as well as establishment of companies that supported by the government.

-Moral factor; respecting and appreciating the creative minds through the dissemination of their research and the allocation of scientific prizes and grant them discretion. And limit the application of routine in official offices concerning especially the Ministry of Higher Education when the Iraqi brains who have higher education abroad come back home and resort to the equation of their certificates they find it not an easy task at all due to routine.

-Scientific atmosphere: providing services and modern equipment and ensure their rights that must be provided in their motherland.

Then, we can list some practical methods used to benefit from migrated brains:

1-Forming a public council of experts under the supervision of the Iraqi government. It elected a specialized management and executive committee to handle with how to invest brains.

2-The committee would contact with the migrated brains through the information Bank that was established to benefit from their suggestions in this field.

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30 - <http://www.tradingeconomics.com/iraq/unemployment-total-percent-of-total-labor-force-wb-data.html>

3- Study the scientific, industrial, health and economic needs for Iraq, then determining the points that can be discussed with the migrated brains.

4- Encouraging migrant brains to contribute in studying plans and projects and choose the best of those projects, then classify projects that they can contribute in.

5- After studying and discussing those projects, forming channels to transfer and exchange information between the committees and the migrated brains under the supervision of the Ministry of Higher Education and other ministries.

6- Providing human and material resources required for the establishment of commercial and industrial projects that agreed on by the committee and the migrated brains, and funded by the government.

7- Create special department at all Iraqi embassies caring about Iraqi brains and talents.

8- State an incentive award for the competence of Iraq, both at home and abroad for those who accomplish outstanding research in various fields, and to facilitate the granting of fellowships and research trips with Arab and international universities.

9- The equivalence of diplomas, masters and PHDs obtained by the brains from universities abroad regardless of their scientific background and their bachelor degrees, since they succeeded in obtaining those degrees despite being different from the bachelor's. That means they are distinguished and smart and not the opposite. Most of those who get higher degrees abroad fear the idea of non-equivalent degrees in Iraq, which prevent them from returning back home.

However, if Iraqi government follows some procedures including the above mentioned ones, plus benefited from the Korean experience, and getting experts and economists from Korea with their full cadre to make workshops and training programs that help in improving Iraq's economy then, applying their successful experience on Iraq concerning economic situations in addition to the brain drain issue, then it served Iraqi people a great deal and

contributed in boosting their economy forward. And only in that condition brains may lose the incentive to leave since they are carrying a strong ties between themselves, such characteristic that distinguishes them among nations. When they find in their homeland same welfare found in developed countries, why should they depart and migrate while they could stay, lead a great life with their families, and could serve their homeland.

No institution or body could help in recovering Iraq's current economy and diagnose where the decay and weaknesses better than the Koreans, since they passed by almost same circumstances of wars and destruction of their infrastructures, yet they stood up again and reverse their loss into a miracle of economic boom that amazed the whole world and succeeded in regaining most of their migrated brains again. I believe that everything is in the hand of government, since it has the tools to do whatever it likes to affect or even change the destiny of nations.

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