

# **The Brain Drain Phenomenon in Higher Education in Greece: Attitudes and Opinions on the Decision to Immigrate**

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## **Abstract**

Brain drain is increasingly a matter of concern within the EU, as more and more highly skilled people migrate from the European south to the north and west of the continent. On the one hand, the phenomenon of brain drain refers to the migration of well-educated or talented people, i.e. highly skilled professionals, researchers, academics and students. On the other hand, the term 'migration' is used to define the geographical movement of individuals and groups, for temporary or permanent residency in another socio-cultural context. The causes for emigration are mainly financial, such as when the parent country's economy is undergoing recession. The phenomenon of 'brain drain' is most often associated with economic loss for those countries losing their highly skilled workforce. In Economics, this phenomenon is known as 'human capital flight', referring to the movement of the capital, which is not invested in the country where it was created. Brain drain is usually also associated with social loss, since it refers to the exodus of highly specialized professionals, scientists, researchers, academics and students. This paper presents the findings of the interviews conducted with 35 educators who have already emigrated from Greece and work in higher education institutions around the world. The findings suggest that the majority left Greece because of the crisis and the low wages in the sector as well as due to the lack of opportunities, as nepotism has been found to be a key issue to the decision to leave. Interestingly most of the

participants believe they might return to the country in 5 years time. Overall, the outflow of high-skilled individuals has significant long-term implications for the country's economic growth potential and its competitiveness. This paper aims at creating awareness of the phenomenon as it affects education systems and societies, which export skilled labour.

**Keywords:** brain drain, Greece, economic crisis, migration, higher education

## **1. Introduction**

The brain drain phenomenon has existed in Greece since the mid 1950s and has increased since 2008 with the economic crisis in the country. The phenomenon is due to the financial crisis not only in Greece but also on other countries in Europe such as Spain, Portugal and Italy. The phenomenon mainly refers to the migration of well-educated and talented people such as researchers, academics, skilled professionals as well as students. Globalisation and other factors that are discussed further in this paper contribute to brain drain. In addition, the international environment has intensified the migration phenomenon (Theodoropoulos et al., 2014). A sector in Greece that has been dramatically influenced is academia. The total number of graduates for example living abroad is estimated at 114.000 to 139.000 (Lamprianidis, 2011). Recent research suggests that scientists in Greece migrate due to the lack of suitable jobs and career prospects in the country and affects mainly the educated people hence the negative impact in the country is maximized (OECD, 2015). This paper aims at analyzing the current situation in Greece in terms of the brain drain phenomenon in higher education as well as to explore the attitudes and opinions of those academics who have already migrated.

## **2. The Current Economic Situation in Greece**

The Greek economy deteriorated since the early days of the country's entrance to the Eurozone. The economic situation got worse in October 2009 with a deficit of 7.7 percent of the country's gross domestic product (GDP) (Matsaganis, 2011). Unemployment raised to 50 percent, the public sector was downsized and drastic cuts in public expenditure were considered leading to many redundancies, closures and mergers of public organisations with focus on health care and of course education. The crisis, the Memorandum of Economic and Financial Policies (known in Greek as the Mnimonio) with the relevant measures caused strong domestic reaction and civil unrest (Giousmpasoglou et al., 2015). Poverty and labor insecurity have grown as the GDP of Greece since 2012 has shrunk by approximately 18 percent (Koulouris et al., 2014). Between the years 2008 and 2011 recruiting new employees has decreased by 26.6 percent and from 1,143,920 to 839,015 (Karantinos, 2012). The unemployment rate in Greece in 2013 had risen to 26.9 percent (ELSTAT, 2013) and according to OECD was predicted to be 28.2 for 2014 (OECD, 2015).

The economic crisis has a social impact as well as it raised the social suffering through cutbacks in social welfare, health care and education (Georgiopoulos and Maltezou, 2013). Employment relations are insecure,

wages are reduced (Labropoulou & Smith-Spark 2012; Janssen 2013); suicide and depression rates have raised (Euro Health Net, 2011) as well as the social unrest (Matsaganis, 2011). The austerity measures have also impacted on university academic staff, as since 2009 many positions were abolished by not replacing academics that retired (Aggelopoulos & Astrinaki, 2011). Many academics were forced to modify their retirement plans. Further problems were created to universities, which relied on temporary staff for lectures and labs (Koulouris et al., 2014). Boura (2012, p.2) proposes that this financial crisis could be characterized as “a ‘complex syndrome’ of a systemic fault caused by a widely spread of capitalism” and as a result there is evidence of high level of migration. According to Iravani (2011, p. 284) “migration as a phenomenon differs from country to country and from time to time”. Migration can be considered as the phenomenon of high quality manpower that leaves the country hence may be related to the phenomenon of ‘brain drain’ (Iravani, 2011). Iravani (2011) provides a classification of brain migration. He proposes four types, brain over flow, brain expert, brain exchange and brain drain. In terms of brain over flow, he suggests that some of the brains remain a surplus, as the demand is less than the supply, hence it might get absorbed in a foreign market. For example, countries such as Philippines, that cannot absorb their human capital, deliberately train people for export. Brain migration may also take the form of exchange as it is done for the purpose of mutual benefits between countries in terms of knowledge, expertise and training. Hence, this may be temporary and it involves brain loss compensated by corresponding brain gain. Since the 1950s migration has been a major shaping factor shaping the sociocultural landscape in Greece, however the latest wave has had more dramatic effect as those who have mainly left exhibit different characteristics. In the past those who migrated were mainly males from poor social classes with some skills, whereas today immigrants are the youngest and the brightest, ambitious and highly educated (Christopoulos et al., 2014; Giousmpasoglou, 2014; Ifanti et al., 2014; Brezis and Soueri, 2012), which has led to the brain drain phenomenon in the country. In fact, an OECD (2012) report advocates that the quality of human capital currently available in Greece has reduced compared to 2008.

### **3. The Greek Brain Drain and its Effects**

As it has been previously discussed globalization and the financial crisis has affected the movement of people, and in the case of brain drain to those who are highly skilled. According to Brezis and Soueri (2012, p.2) “the brain drain theory describes the decision of the individual when he has already acquired some human capital in his country, and then decides to move”. Ifanti et al. (2014, p. 211) define the term brain drain as “the large-scale immigration of educated and qualified individuals, mainly doctors, scientists, engineers and financial professionals, from their countries to seek better social and/or working conditions abroad”. Lambrianidis (2011 in Labrianidis and Vogiatzis, 2013, p.473) defines brain drain as “the

international transfer of resources in the form of human capital and mainly applies to the immigration of highly skilled people from less-developed to developed countries”. Nevertheless, the phenomenon has expanded to developed countries as well, and its dimension cannot be easily measured given the free movement of people especially in the EU. Brain drain makes the countries lose their human capital especially when they are mostly needed to contribute to the society’s development and growth after economic recession. It is also associated with a loss of national resources as the human capital is spent to the recipient countries that have not actually borne the cost of educating these people. The recipient countries such as the US, UK, Canada and Australia, with recent addition of Norway and Sweden, traditionally represent the countries that receive graduates (Ifanti et al., 2014). The General Confederation of Greek Workers (GSEE) report proposes that 38 percent of young people migrate abroad with a largest proposition being in economics, marketing and legal sciences, 73 percent hold a masters degree while 51.2 percent have a doctorate (GSEE-ADEDY, 2010). Moreover, 68.4 percent of Greek graduates working abroad are paid over 40,000 euros per year, whereas in Greece the corresponding annual income is much smaller (Theodoropoulos et al., 2014). Overall, the outflow of high-skilled individuals may have significant long-term implications for a country’s economic growth potential and its competitiveness, while the inflow of talented, skilled workers may stimulate economic growth and enhance competitiveness (Gropas & Triantafyllidou, 2013). Nevertheless, Theodoropoulos et al. (2014) suggest that brain drain affects the better educated scientists and it has negative results for Greece. The phenomenon of migration and brain drain has been explained above, however the main reasons are summarized in table 1.

**Table 1.** *Factors that cause brain drain*

<b>Economic Factors</b>	<b>Non-Economic Factors</b>
<p data-bbox="328 1294 735 1435"><i>Competitive Salaries:</i> Higher earnings’ level in developed economies which attract young scientists.</p> <p data-bbox="328 1476 759 1877"><i>Variety of benefits:</i> part of the compensation package which includes healthcare and pension scheme makes the possibility to work abroad more attractive. For expatriate employees these provisions are even more diverse and expand to the coverage of tuition fees for children’s school and flight tickets to the country of origin.</p>	<p data-bbox="790 1294 1267 1547"><i>Work related factors:</i> inflexibility of the employment structure; lack of research funding; professional isolation; nepotism; lack of professional competence; and insufficient recognition of talent in young people.</p> <p data-bbox="790 1588 1262 1841"><i>Motivation:</i> The lack of hope for the future and the social discrimination that may exist in a country such as distinctions based on race, national identity, religion and social class are also factors which exacerbate this phenomenon.</p> <p data-bbox="790 1881 1273 1948"><i>Quality / Excellence:</i> The low quality of intellectual, professional,</p>

<p><i>Globalisation</i>: it strengthens the tendency of human capital to be concentrated where it already exists in abundance. This phenomenon is also known as ‘<i>reverse transfer of technology</i>’ (Logan, 2009)</p>	<p>educational and cultural life in the country leads a significant number of new graduates to seek another country which will cover their needs.</p> <p><i>Power &amp; Politics</i>: In some cases there are political factors that may prevail in the country forcing young scientists to leave their country.</p>
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Source: Adapted from Labrianidis (2011, pp.44-48)

Tsilimigra (2010) proposes that the characteristics of the labour market and the better prospects for career development are among the main factors for migration for young graduates. She adds that acquiring more and further specialised knowledge contributes to their decision to leave Greece and find employment in other countries.

Rizvi (2005) proposes that there are pull and push factors, which determine the severity of the brain drain and migration for any particular country. He describes the pull factors as the favourable conditions in the receiving countries, which attract migrants such as higher salaries and standard of living and high standard of education among others. Push factors are described as the unfavourable conditions in the country which motivate people to migrate such as low wages, less job opportunities, recession and other.

A recent report by the Global Governance Programme (Gropas & Triantafyllidou, 2013) reveals that 90 percent of the total immigrants hold a university degree out of which 24.5 percent are engineers, 22.3 percent are economists, 19 percent are IT specialists and 12 percent are mathematicians. Their ages are relatively low with 48 percent under 30 years old and 49 percent between 31-45 years old. The report also suggests that more than half of the brain drain immigrants were working before leaving Greece, but were not satisfied with the prospects of their work and their earnings. This is the reason why 73 percent of the immigrant scientists are found in a short-term vocational rehabilitation, while 67 percent find a managerial position. The most striking is that 46 percent of the immigrants live abroad for the first time without having any relatives or friends in the country where they are looking for work. When asked to identify what ‘*pushed*’ them from their country of origin and what factors ‘*pulled*’ them to their new country the recurrent themes that emerged were meritocracy opposed to corruption and nepotism, employment opportunities in positions of responsibility offered to younger professionals based on skill and drive, salary levels, quality of life, and openness to diversity.

Triantafyllidou et al. (2013) argue that the decision to migrate is driven by a sense of severe relative deprivation as a result of the crisis and a deep frustration with the conditions in the home country. It seems that the crisis has magnified the ‘*push*’ factors that already existed in Greece and that now nurture the current migration wave. They also argue that this migration is framed within the generic mobility trend amongst human capital within the

E.U. as a prerequisite for career progression. As a result, it is not reasonable to expect that a large share of these people is likely to return, especially given the ongoing economic and social crises that further exacerbate the observed mismatch between supply and demand for a highly educated workforce in Greece (Labrianidis & Vogiatzis, 2013). Greece has been investing money to train and develop a highly qualified workforce that it is not able to motivate and retain. As a result, the young and talented workforce is migrating abroad, leaving the country with limited scientific potential, which in turn affects the production structure (Christopoulos et al., 2014).

The aim of this study was to explore the Greek brain drain phenomenon and investigate academics' attitudes and opinions on the reasons that influenced this decision. The study attempted to identify their views on their quality of life, their occupation, and how the economic crisis has affected their decision to immigrate. Finally, this study explored their willingness to return to Greece.

#### **4. Methodology**

Cohen et al. (2008) suggest that the aims of research determine the methodology and its design. The topic indicates that brain drain refers to people who have emigrated from their country to another, hence to serve the purpose of this study academics from Greece who have left the country were identified via the researchers' network. Since the population of the study were scattered all over the world it was decided to use the Internet not only to trace them, but in some cases to conduct the interviews. Initial contact was established via LinkedIn where the call for the research was placed. Snowball sampling was used as some of the participants proposed other people who would be interested in participating in this study. The authors considered the limitation of this sampling technique as it was difficult to generalize, hence at a later stage they designed a questionnaire based on the interviews to be distributed to a larger sample. The results of this survey are available but will be presented at another stage.

25 semi-structured interviews were conducted via skype as the participants were scattered in the US, Europe, Asia and the Middle East. 10 interviews were face-to-face with Greek academics who live and work in the same area as the researchers and they were willing to participate to the study. The first part of the semi-structured interviews included questions on demographic information such as age, country was the participants reside, position they currently hold, when they left Greece and their gender. The second part focused on the reasons they decided to leave their country, the factors that influenced their decision to look for a job and accept an offer in the country where they currently are and finally their attitudes and views on brain drain and their intention to return. Each interview lasted between 30 to 45 minutes and they were tape recorded after having gained approval by the participants.

All the interviews were transcribed and thematic analysis was conducted to identify key themes that emerged. This is the first survey on Greek academics and provides valuable information on the features of the

phenomenon as well as it provides an insight on their intention to return to the country. The key themes that emerged from the interviews were the reasons why the participants left Greece, the key influencing factors that contributed to their choice of country, the main motivators that would bring them back and finally their intention to return and how they see the future potential of academics in Greece.

## 5. Results and Discussion

### 5.1 Description of the Participants

The characteristics and some demographic information on the participants is important to understand their attitudes and opinions on the brain drain phenomenon in Greece. The participants' information is exhibited in table 2.

**Table 2.** *Sample Demographics and profile*

<b>Age</b>	<b>n= 35</b>	<b>%</b>	<b>Position</b>	<b>N= 35</b>	<b>%</b>
25	2	5.7	Management	13	37.1
26-35	18	51.4	Teaching	14	40
36-45	10	28.6	Research	8	22.9
46-55	4	11.4			
>56	1	2.8			
<b>Country</b>	<b>n= 124</b>	<b>%</b>	<b>When left</b>	<b>N= 124</b>	<b>%</b>
Europe	22	62.9	Before 2008	5	14.2
Middle East	10	28.6	2009	2	5.7
North America	3	8.6	2010	2	5.7
			2011	3	8.5
			2012	6	17.1
			2013	8	22.9
			2014	9	25.7

It is evident from the above that most of the respondents were between 26 and 35 years old. The participants' age demonstrates that young brains have left the country. The majority resides and works in Europe and more specifically in the UK, and the Middle East, and most of the participants left in 2013 and 2014. Interestingly, the majority of the participants are involved in academic management and teaching and few with research.

### 5.2 Contributing Factors to the Brain Drain Phenomenon

The main topics that were discussed by all participants focused on areas such as corruption, nepotism, lack of opportunities and jobs, low wages and unemployment. Most of the participants (58%) said that they have graduated from university and although they have got their degrees and they have not found any job yet. They very explicitly said that the circumstances in the

market are tough especially for young graduates that they have little or no experience. One of the respondents said that he was hoping to get at least two job offers after his graduation, he would choose one and then he would be given the opportunity to continue for a masters degree. According to OECD (2011) youth unemployment (among 25-29 years) in Greece is 13.2 percent. The participants expressed views that confirm these numbers. One participant of the age of 25 said *“I got my degree and I was unemployed for 2.5 years...until I decided to look for a job abroad...”*.

Another concern was the lack of opportunities and jobs especially in the area of the participants' specialisation. The majority reported that they could not find job opportunities in the area of their studies or at least in similar sectors. The greatest challenge in Greece has always been the mismatch of the qualifications with the skills required in the labour market (IOBE, 2011). Another participant said *“I have a degree in engineering and for 3 years I was tutoring high school students in math and physics to make some money...”*. Interestingly, many of the participants said that many of their friends and relatives accused them for leaving their country to get a job abroad. Nevertheless, they expressed their frustration of having to work and leave with the minimum salary of 400 euros per month, the salary for an unemployed worker. A participant said *“...I could not even afford my rent, hence I moved back to live with my parents...this is when I decided to look for a job abroad... at that time 3 years ago I was making 460 euros...and imagine that I already had some experience, what about all those new graduates who have no experience? They beg to get a job to gain some experience?”*. Many participants were frustrated with the kind of jobs they had to do and the little compensation related to these jobs, i.e. many said they had to give out leaflets for very little per hour for a short period of time until they decided to look for opportunities abroad.

Moreover, five participants proposed they suffered from various psychological problems due to unemployment, income instability, insecurity, and social exclusion among others. These views agree with Anagnostopoulos and Soumaki (2012) who claim that *“such disadvantaged conditions predispose the risks for emergence of mental problems.... And have become symptoms of the current social reality”*. Many added that they had personal issues as they found it very difficult to be unemployed and they had issues with their well-functioning. Similarly, Bouras and Lykouras (2011) propose that *“employment plays significant role in shaping someone's personality by placing him to the productive forces of the society”*, and they continue that unemployment has been positively correlated with depression and stress symptoms. Another participant for example said *“I did not know what would happen, I had been unemployed for 7 months and I could not afford to go out meet with friends, I was afraid of the future, for my family, I had not alternatives, I was so depressed”*. In agreement to Bouras and Lykouras (2011) who support in their study that our socio-economic status plays an important role in our self-confidence, an older participant expressed concerns similar to the younger participants *“I could only see problems and nothing else. I could not find a job, I was embarrassed to admit that I was unemployed at my age”*.

Table 3 demonstrates the summary of the reasons that contributed to the participants' decision to leave Greece.

**Table 3.** *Reasons for leaving*

Reason (N=35)	Frequency	Percentage
Lack of jobs	24	68.6
Lack of opportunities	21	60
Low salaries	32	91.6
Corruption / Nepotism	13	37.1
Other	16	45.7

Corruption and nepotism in Greece were also included among the reasons. Especially with the crisis many proposed that the situation in this area has got worse as everyone tries to secure a job through acquaintances and people they know in key positions in companies and public organisations. Other reasons included the fact that many had friends abroad who invited them to stay with them until they found a job. Interestingly women in the study were more positive as they were more optimistic and they were the ones who left quicker than the others, as soon as the crisis started in the country. This is perhaps due to the fact that the women interviewed were not married hence it was easier for them to move. Although, they were living with their parents they did not hesitate to look for jobs in other countries. Malkoutzis (2011) proposes that the new trend in Greece is for people to return to parents' home to deal with the crisis, regardless their experience or prior way of living. *"I live with my parents, I had no option, I could not afford to live alone any more, I could no longer support myself."* was another comment among the participants.

Furthermore, the European union offers free labour movement enhancing immigration within European borders, however the crisis has increased the phenomenon. People move for the economic benefits, hence many have been forced to immigrate although they are well educated. For example, in 2011 4,100 Greeks immigrated to Germany. Other destinations where Greeks moved to are Australia, the UK, the Middle East (Kathimerini, 2015), as there have been various activities to assist people to find jobs such as websites for this purpose i.e. hireagreek.com. The majority of these people, including the participants in the study are graduates with valued skills who could not get a job in the country. Moreover, they were attracted by the very good salaries.

Tetty (2006) proposed that the dissatisfaction with salaries is a key factor undermining the commitment of academics to their institutions and careers, and consequently their decision or intention to leave. For example, a participant said *"I arrived in Bahrain and I was surprised to see that there were around 10 Greek colleagues all with PhDs. We were all hired to train the locals and we do not know when they will not want us any more... I chose this place mainly because of the opportunity to work at a public university, but also for the money. The salary offered was triple of what I was making in Greece and tax-free. In addition, the weather is good, it seems to be a safe place and not very far from Athens, just 3.5 hours direct flight"*.

The following table demonstrates the key issues discussed by the participants in reference to the reasons they were brought abroad.

**Table 4.** *Reasons brought abroad*

Reason (N=35)	Frequency	Percentage
Salary	33	94.28
Working conditions	21	60
Quality of life	26	74.2

Others commented on the quality of life and the working conditions at their organisations. They proposed that they have more opportunities to conduct research, whereas in their previous institutions they were only involved in teaching. Many positively commented on the quality of life and the fact that they found very good schools for their children, they have got the opportunity very soon to buy a good car, they had very nice apartments and they were saving to buy their own house. It is worth noting that many suggested they would prefer to live in Greece, had they found similar jobs as *'life is much better, the sun, the sea, social life...'* one commented *"but there is always a price to pay, if you are unemployed then you cannot even enjoy these"*.

Finally, the key issues in reference to poor working conditions the participants expressed their disappointment with lack of research and development at Greek universities. They said that usually they were loaded with administrative tasks that consumed most of their time. In addition, research was not valued, the existing system did not support collaborative research, and hence the potential to grow further and develop their knowledge in their field was limited.

Nevertheless, they all, except two, expressed the wish to return to Greece. Some proposed they want to return within the next five years, others referred to longer periods even up to ten years. Interestingly, all suggested that they would return only if the conditions were appropriate. More specifically, they said that they should have the opportunity to work in their sector, be allowed to do research and be given the proper incentives to return and bring their savings back to the country for example they suggested to be given opportunities for less taxation if they decided to buy real estate.

Most of the participants said that they would like to return to Greece, however their evaluation of the current situation in the country makes them reject the opportunity to return in the near future, in accordance to Malkoutzis' (2011) study who found that 51 percent of the PhD holders in his study, 84 percent reject the idea of coming back.

## 6. Conclusions

Brain drain has emerged as a significant phenomenon not only in Greece but also even in developing countries due to globalization and the economic crisis. Brain drain is the human capital drainage, which leads to emigration of educated and highly skilled workers. Brain drain is a structural unresolved problem in Greece, despite the fact that the push and pull factors

are known. The economic situation in Greece, including nepotism, lack of opportunities, corruption and lack of work with low wages and other work-related reasons have been the main reasons the participants in the study decided to live and work abroad. It is evident from the above that the push factors have played a stronger role than pull factors.

The world in general values education, and Greeks are offered their education for free. Nevertheless, the proper and attracting circumstances have not been created to keep the educated in. The best and the brightest leave the country, hence the governments and other bodies should do their best to create better working conditions and more employment opportunities to keep these people as they are the ones who will contribute to growth and progress in their areas of expertise. High salaries are still an important incentive for academics to stay in Greece. Nevertheless, monetary motivation is alone enough to outweigh the cost of migration. Domestic system deficiencies than high wages were main reasons for leaving Greece. Low investment in research and development, unattractive academic jobs and the excessive load of administrative tasks were among the main concerns of the academics in the study. The Greek government should design policies to attract expatriates, with return migration policies, which are more appealing due to the strong emotional attachment to the returnees' land (Campanella, 2015).

The cost of the outflow of talent is high and well known. The overall potential of the country in economy terms is reduced and innovation is undermined. Each academic educated in the country that leaves represents a failed investment, especially if an equally qualified immigrant does not replace him. The potential of the return of these academics may contribute positively to the brain phenomenon in Greece. They may transfer new knowledge and new technologies back to the country, adapt successful business models in the local environment, and encourage fruitful intellectual exchanges with international labour force.

If the emigrant talents are not willing to return then the government should consider the adoption of formal and/or informal institutions to engage diaspora groups in order to encourage positive spillovers for the country with information and knowledge exchange.

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