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## **Greece: education and brain drain in times of crisis**

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## Greece: education and brain drain in times of crisis

### Grecia: istruzione e brain drain in tempi di crisi

*Andrea Pelliccia*

#### **Abstract**

Brain drain is a phenomenon that Greece has experienced since late 1950, which has continued in subsequent decades and intensified over the 1990s. Although there was, in the first decade of the twenty-first century, a political and economic situation more stable than in the past, the unprecedented economic crisis that Greece is going through has caused, and will continue to cause, the increase in brain drain due to poor employment opportunities and strong austerity measures taken by past governments, which depress the level of living standards. If this massive human capital flight increases, which is very likely, it would surely worsen the situation as Greece would continue to suffer depression effects on its economy and to lose precisely the resources it needs for economic recovery.

This article highlights some causes determining the brain drain in Greece, also in the light of some scientific surveys that analyse this phenomenon. Moreover, it tries to provide keys to ending the crisis and to economic recovery, starting from education and implementation of major reforms aimed at overcoming problems that have long plagued the Hellenic education system and that can enhance its quality, while maintaining commitments to equity and social justice.

**Keywords:** brain drain, higher education, economic crisis, educational reform, Greece

#### **Riassunto**

Quello del *brain drain* è un fenomeno che la Grecia ha vissuto fin dalla fine degli anni 1950 che ha continuato nei decenni successivi e che si è intensificato nel corso degli anni 1990. Nonostante vi sia stata, nel primo decennio del XXI secolo, una situazione politica ed economica piuttosto stabile rispetto al passato, l'attuale crisi economica senza precedenti che la Grecia sta attraversando ha provocato e continuerà a provocare l'aumento della fuga dei cervelli a causa delle scarse opportunità di lavoro e delle forti misure di austerità, prese dagli ultimi governi, che deprimono il livello standard di vita. Se la fuga massiccia di capitale umano dovesse assumere dimensione più grandi, cosa assai probabile, la situazione potrebbe sicuramente peggiorare perché così la Grecia continuerebbe a subire effetti depressivi per la propria economia e a perdere esattamente le risorse umane di cui ha bisogno per la ripresa economica.

Questo articolo analizza alcune cause determinanti la fuga dei cervelli, alla luce anche di contributi scientifici che esaminano questo fenomeno. Individua inoltre alcune possibili chiavi

di uscita dalla crisi e di ripresa economica, partendo dall'istruzione e dall'attuazione di importanti riforme finalizzate al superamento di problemi che hanno a lungo afflitto il sistema di istruzione ellenico e che possono migliorarne la qualità, pur mantenendo impegni di equità e giustizia sociale.

**Parole chiave:** brain drain, istruzione superiore, crisi economica, riforma dell'istruzione, Grecia.

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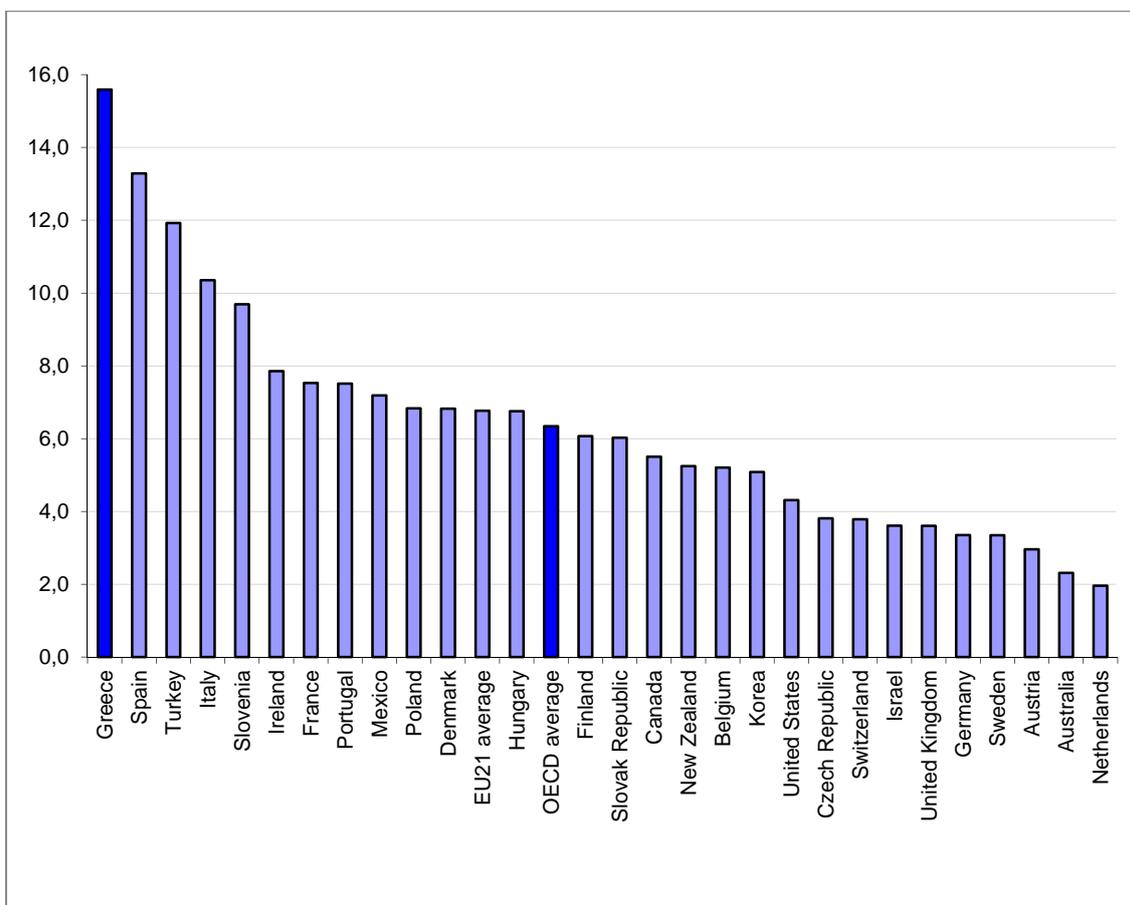
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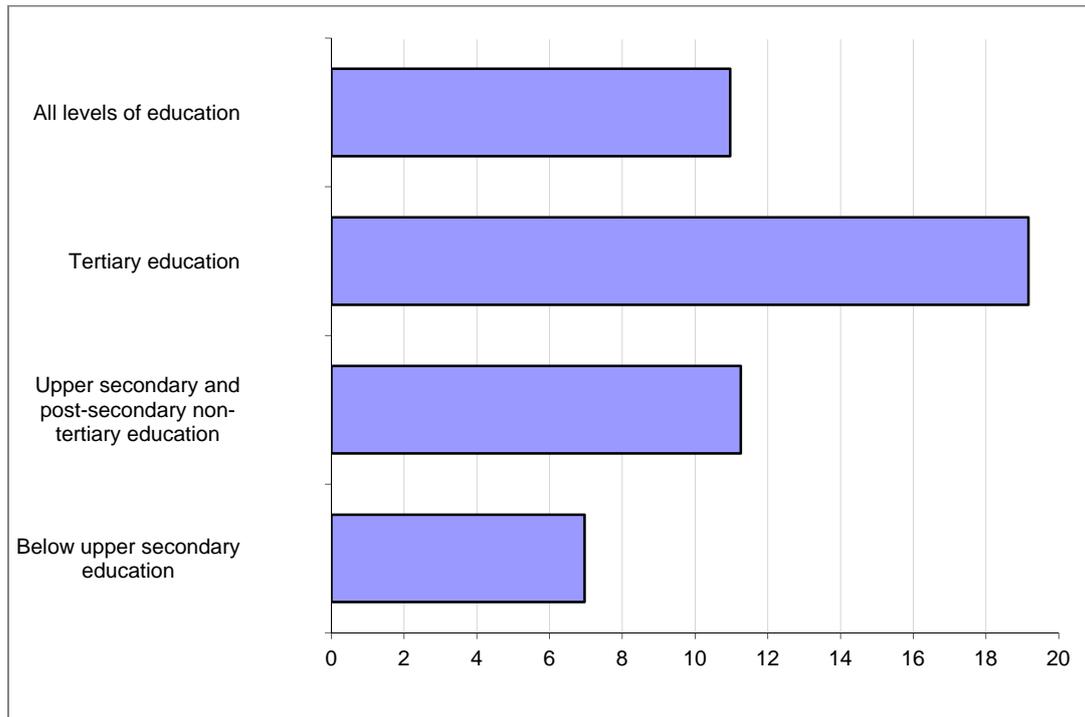
According to OECD (2012) data, in 2010 Greece had the highest unemployment rate among graduates between 25 to 29 years-olds (15,6%) compared to all other OECD countries whose average was 6,3 %. The most disconcerting point is that, in the long run, having higher academic qualifications does not act as a shield of protection against unemployment. In fact, in the age group between 15 and 29 years, 19,2% of graduates were unemployed compared to 11,3% of those who have an upper secondary and post-secondary non-tertiary education and 7% of those below upper secondary education. Moreover, the unemployment rate can be related to the type of studies. In fact, the subject area affects the labour market both in terms of the employment situation and the time of unemployment (Livanos, 2010). Graduates who have completed their studies in disciplines such as philosophy, sociology, law, mathematics, physics, medicine, dentistry, pharmacology, biology, agronomy, have less employment opportunities and a greater chance of a long wait in the meshes of unemployment than those who come from fields more expendable in the labour market such as economics and computer science.

*Fig. 1 Unemployment rate among graduates between 25 and 29 year-olds (2010) %.*



Source: Elaboration on Oecd data, Education at a Glance 2012.

Fig. 2 Unemployment rate by level of educational attainment between 15 and 29 year-olds (2010) %.



Source: Elaboration on Oecd data, Education at a Glance 2012.

Some studies attribute the phenomenon of unemployment in Greece to the issue of over education, that occurs when the ideal number of graduates per capita is in excess (Livanos, 2010). In effect, the number of graduates in Greece is high and statistics show that the percentage of graduates has increased steadily in recent years. The problem of over education is primarily related to the zero cost of studies that lead many young people to take an educational course based on their social status and not necessarily in relation to employment prospects. This also explains the choice of subjects traditionally considered as prestigious such as medicine, architecture and law. One of the main consequences is therefore the increase in the number of these professionals in the labour market. In addition, a further problem lies in the orientation of education towards the public sector, traditionally preferred over private because it has always acted as a safety net against unemployment by offering higher salaries, better working conditions and more attractive pensions. This has resulted, especially in the year 1980, in the increase in the number of people employed in occupations such as teaching, employment in public banks and public administration. Despite the decline in the percentage of public employees, since the year 1990 to the present day, the supply of graduates has far exceeded the public sector demand, generating high levels of unemployment, under-employment, hetero-employment and emigration.

In contrast, other studies dispute the attribution of the high rate of graduate unemployment in Greece only to the phenomenon of over education (Labrianidis, 2011). In the same way, the brain drain from Greece can not be regarded as the exclusive result of over education. In fact, although the number of graduates is increasing, it continues to be lower in proportion to the

population when compared to other economically advanced countries. As illustrated by Labrianidis (2011: 129), the main destination countries for Greek graduates (Great Britain, Belgium, France, Holland and the USA) can absorb a number of them into the labour market, despite the higher number of people, compared to Greece, who annually acquire a university degree per 100 inhabitants. The principle cause should be found not so much in over education but rather in structural problems of the Hellenic economy that is unable to generate demand for graduates. Indeed, the Greek economy has never really moved into a model based on knowledge and technology. This has therefore resulted in a low demand for graduates and post-graduates, the inability to absorb qualified personnel into the labour market and, consequently, a high level of unemployment. The lack of competitiveness and innovation and the increasingly widespread unemployment, especially for the young, may increase the brain drain towards the traditional countries of emigration, thus generating a 'reverse transfer of technology' due to the less economically developed countries, which instead of receiving benefits, offers them to the richest countries (Brandi, 2004; Logan, 2009).

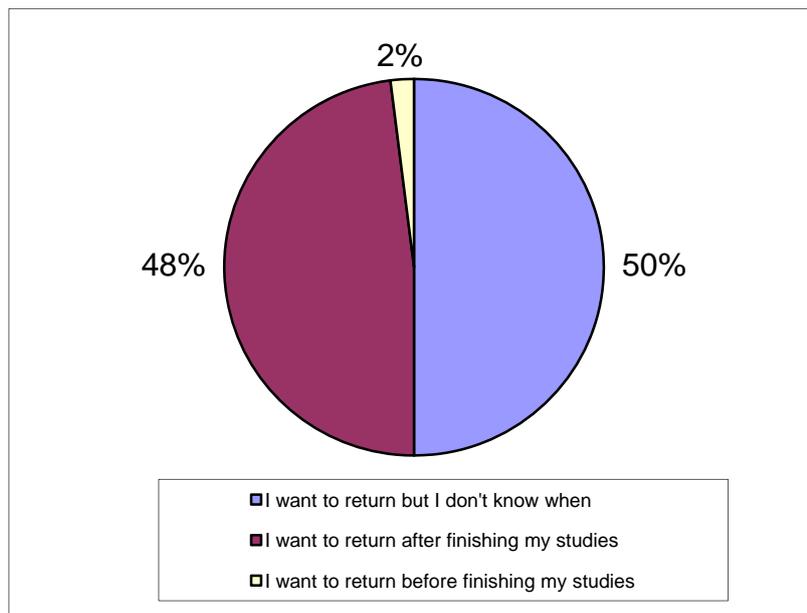
Brain drain is a phenomenon that Greece has experienced since late 1950 (Coutsoumaris, 1968; Grubel and Scott, 1966), which has continued in subsequent decades (Kouvertaris, 1973; Zobanakis, 1980) and intensified over the 1990s. Although there was, in the first decade of the 21st-century, a political and economic situation more stable than in the past, the unprecedented economic crisis that Greece is going through has caused, and will continue to cause, the increase in brain drain due to poor employment opportunities and strong austerity measures taken by past governments, which depress the level of living standards.

Holezas and Tsakloglou (2008) estimate that today the emigration of graduates includes nearly all the scientific fields, while more than 3000 Greeks work as university professors and about 5000 as professors or researchers in universities of EU countries. A further significant scientific contribution, related to brain drain, comes from a survey conducted recently (Labrianidis, 2011) in which 2734 Greek graduates participated. The results showed that, among those who have worked abroad, only 15,9% returned to Greece while 84% preferred to stay out of their country. Many respondents (81%) were mainly involved in areas such as business administration and law (33%), computer science, natural sciences and chemistry (25%) and engineering (23%). Among the countries in which they work, the dominant ones are Great Britain (3,7%), the United States (28,7%), Germany (6,6%) and Switzerland. An interesting fact is that about 60% did not attempt to find work in Greece and that working conditions and wages of those who have returned, mostly belonging to the higher socio-economic classes, appear to be worse than the ones who left to go abroad. Labrianidis attributes the low demand for graduates to the late development of the technology sector of the Greek economy that is characterised by a high degree of weakness in absorbing skilled personnel into the labour market, especially in the private sector. A solution to economic recovery might be, therefore, the strengthening of private companies and moving them toward more innovative sectors in order to increase the demand for highly qualified personnel and to reduce the brain drain.

A qualitative research conducted in Italy on Greek student mobility in the universities of Rome (Pelliccia, 2012), highlights that many students are planning to return to Greece after completion of their studies in Italy, even if half of them are quite unable to define the period.

Overall, 63% of people surveyed said they would return to Greece, 19% were not able to answer while 18% said that, among their life projects, there will be no return home. The students interviewed during their long absence are identified in their native land keeping the connection with Greece alive, and always thinking about a possible return. But they show a strong indecision on the period of return, or even bring a possible return into serious question. In effect, although the majority of the students foresee their future in Greece, half of this component is not able to indicate the period of their return. Nearly half, instead, plan to return after obtaining a degree while only 2% say they would return before finishing their studies (fig.3).

*Fig. 3 Students who plan to return permanently to Greece (%).*

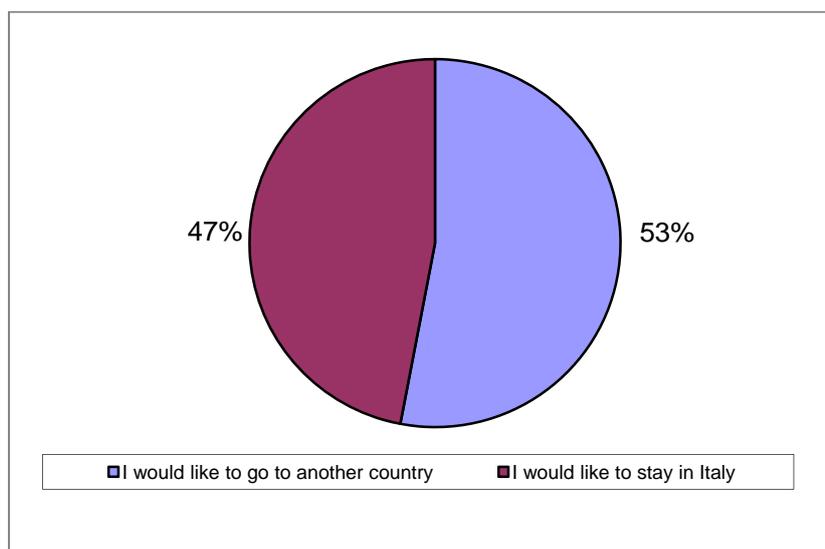


Source: compiled by the author (Survey Irpps-Cnr 2012).

This indecision has been further strengthened over the past two years due to the socio-economic crisis that Greece is experiencing. In effect, many students said they had considered the study period in Italy as a moment of passage, almost liminal, with the certainty of a return to Greece after having completed their studies. These projects, with the onset of the crisis, have been changed in the sense that they still want to go back but they don't know when to go back. Thus, the original objectives slowly dissolve or, however, are revised and replaced by new more vague and transient plannings. In fact, though the intention to return remains, life projects are still open and long term. However, almost all students think that it is very important to have further training or professional experiences before returning to their homeland. There are those who would like to continue their studies or who are thinking of travelling and finding a job related to their training in Italy or in another country. It is also noted that expectations of a good future and a job corresponding to their qualification are very low. Concerned and aware of the severe consequences and negative effects that the current financial crisis has triggered in their country, the Hellenic students also consider the possibility of returning home and leaving again for other countries if their expectations will not be met. This means that, in addition to an exodus for studies, an additional risk could occur: that being, brain drain. In fact, they could

decide to leave their country once again in search of better living conditions, professional growth related to their studies, salary satisfaction, a better quality of life. Among those who are not willing to return to their country of origin, 53% of the students reported wanting to move to another country, that is not Greece or Italy, while 47% indicated Italy as the place where they could remain living (fig. 4). This component of students does not choose Greece as a country in which to build on the learning experiences accumulated but prefers to remain abroad to continue the post-graduate studies and to search for a job. They are students looking for a better destiny, convinced that Greece is not the ideal place to find recognition and appreciation of knowledge and skills acquired. They are well aware of even more scarce job opportunities that the current economic situation is creating. Thus, the pessimistic view on the destiny of their country drives them to project their future in search of better horizons in Italy, other European countries (UK, Sweden, Germany, Denmark, France, Austria, Switzerland, Holland, Spain and Belgium) or outside Europe (USA and Dubai). This holds true especially for students in medicine who are not willing to return home because they refuse to face the structural problems of Greek society (waiting lists for specialised studies, high levels of corruption, lack of job prospects, etc.). In addition, medical students are concerned about high medical inflation present in Greece. In effect, as pointed out by Labrianidis (2011: 60), Greece in the period 1970-2008, was placed second among 168 countries for the number of doctors, with nearly five doctors per 1000 inhabitants. Although the high number of doctors per capita can be interpreted as an indicator of wealth and development, this does not apply to the Hellenic labour market that is unable to properly absorb all these doctors in both public and private sectors. Among the interviewees oriented towards staying abroad and never returning to Greece, there are also students who would like to pursue a university career by enrolling in a PhD. In this case, both Greece and Italy are not considered ideal places to reach this goal. The main reason is related to non-transparent selection criteria, cronyism, corporatism, patronage, lack of meritocracy and inadequate investment in education.

*Fig. 4 Students who have no intention of returning permanently to Greece (%).*



Source: compiled by the author (Survey Irpps-Cnr 2012).

Obviously the brain drain is not the main cause of the economic crisis that Greece is facing today. However, if this massive human capital flight increases, which is very likely, it would surely worsen the situation as Greece would continue to suffer depression effects on its economy and to lose precisely the resources it needs for economic recovery.

In addition to the increase in brain drain, among the dramatic effects of the current economic crisis, a further decrease in the mobility of Hellenic students could be added and could be as a reflection of the crisis and a reduction in the incentives for study abroad. In effect, studying in another country involves a wide range of high costs that, especially in this economic and historical contingency, the families are no longer able to cope with. Meanwhile Greece, despite Article 16 of the Constitution, can not guarantee everyone access to the higher education system. Thus a convoluted mechanism is triggered off, where the Greek economy can be interpreted as a symptomatic effect of the weakness of the education system to adapt to the needs of the labour market.

As suggested by the OECD (2011), education is the key to ending the crisis and to economic recovery. One road that may be taken is the implementation of major reforms aimed at overcoming problems that have long plagued the Hellenic education system and that can enhance its quality, while maintaining commitments to equity and social justice. It is true that in recent years, Greek governments have tried to introduce reforms. However, Greece is lagging behind many EU and OECD countries in implementing key reforms to improve the competitiveness of its education system. Over the last decade, Greece has not set long-term strategies based on the goals and benchmarks set by the Lisbon Strategy and the Modernisation Agenda for Universities. Therefore the OECD has proposed concrete short, medium and long-term actions in education and training to help Greece out of its economic difficulties. In particular, regarding the university sector, the OECD suggests some measures that, without additional funding, can improve the efficiency of the education system and reduce waste and unsustainable costs. Among the main measures an urgent adoption of new legislation on governance is suggested, oriented to the transition from a highly centralised and fragmented to a more flexible and decentralised system with respect to budget execution and management. In addition, the creation of an independent authority (Hellenic Higher Education Authority) is urged to provide technical assistance for the implementation of the necessary reforms. Finally, of great importance may be the consolidation, merger or closure of small, low-enrolment, low-performing departments and institutions and the establishment of a more clearly differentiated binary system, including a university sector and a non university sector. All this will have as its goal the improvement of the production of graduates and human resources, and of education and training programmes to meet regional needs of employers and the labour market.

Undoubtedly Greece is experiencing a period of transition and a gap between intention and realisation remains. Indeed, where reforms have been introduced, a real impact on the quality and efficiency of the system has been lacking, due to the absence of full implementation of laws enacted. However, the effort that is being made in implementing the reform launched recently and aimed at reorganising the higher and secondary education system, must be emphasised. The main points of the reform concern the construction of a new identity, a new leadership and a new relationship based on trust, accountability and responsibility between the institutions, the

central services and the society. All this could occur via transforming the system of access to universities that will involve the transfer of responsibility, regarding the selection and number of students, to the institutions. Other actions will be directed towards the internationalisation of students through bilateral and multilateral agreements with the aim of fostering cultural cooperation and of making Greece a country of international destination rather than an exporter of students. Participation in the Erasmus program and other European and international programs, the creation of joint degrees with foreign higher education institutions, and offering post-graduate programs in English could definitely represent effective factors for the strengthening of the internationalisation process. Further objectives of the reform should be oriented toward the closure or merger of many courses if they fail to attract enough students, the continuity with the process of harmonisation of the Greek university system to that of other European Union countries through the European Credit Transfer and Accumulation System (ECTS), the elimination of the phenomenon of eternal students placing limits on the total duration of the studies, the development of lifelong learning and, finally, the creation of 'useful degrees'.

*Box 1. Main reforms and laws of the Greek higher education system*

Law 3374/2005

- Establishment of Hellenic Quality Assurance Agency for Higher Education (HQAA).
- Mandatory application of a credit system fully compatible with the European Credit Transfer and Accumulation System (ECTS), for all graduate and post-graduate programs.
- Issue of a Diploma Supplement, based on the model developed by the European Commission, the Council of Europe and UNESCO/CEPES.

Law 3328/2005

- Establishment of a new agency for the recognition of degrees (DOATAP) in order to simplify the procedures for the recognition of degrees.

Law 3404/2005

- Possibility for universities to confer double, multiple and joint degrees.
- Use of a different language from Greek in post-graduate programs for enhancing the mobility of students and academic staff and the cooperation between European and Greek higher education institutions.

Law 3369/2005

- Definition of the organisation for Lifelong learning.

Law 3391/2005

- Establishment of the “International Hellenic University” with the aim of encouraging student mobility.

Law 3549/2007

- Renovation of the structure and operational framework of the national higher education institutes by expanding their autonomy and responsibilities.
- Creation of new institutions of higher education and increase in the number of admitted students.

Diamantopoulou reform

- Strengthening of the cooperation and internationalisation in education.
- Development of Lifelong Learning;
- Creation of an independent authority (“Hellenic Higher Education Authority”).
- Unification of the small structures and creation of a binary system.
- Reorganisation of secondary education and, specifically, high school.
- Change of the access system to higher education.
- Harmonisation of the Greek education system with other systems of the European Union countries.
- Application of the compulsory registration of students each semester in order to eliminate the phenomenon of “eternal students”.
- Introduction of part-time for working students.
- Loans for all students, not just for post-graduate students
- Deletion of “university asylum”.

The Greek higher education system must, therefore, combine well with the needs of the Hellenic economy and society within a process of European integration and globalisation. The economic crisis is already accelerating the process of change and could perhaps provide an opportunity to change the destiny of Greece, by a rethinking of the education system that is the main coordinate for the path of development for the country, to affirm an important role in the European Union and to acquire competitiveness. We hope that the exodus of Greek students abroad can produce macro-consequences in Greece, triggering transnational policies that can have a huge impact on the national higher education policies, creating retroactive effects and producing structural changes to the Hellenic educational system.

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