

Postgraduate Studies in Greece in 2011 and 2016: Universities and Fields of Study

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Abstract

The current paper reviews the changes in postgraduate studies in Greece in terms of fields of studies and universities for the years 2011 and 2016 -the first and the last year for which information is provided by ETER, thus allowing comparisons to be made with the situation in other countries. The study captures the changes in a rapidly developing market in Greece in the beginning and the peak of the economic crisis. It establishes that the number of students who chose to continue their studies at postgraduate level increased significantly over the years. The distribution across different institutions as well as the hierarchy among the different fields of study have also changed for the years 2011 and 2016.

Keywords: Higher Education, Postgraduate studies, EHEA, comparative approach

1. Introduction

In recent years, the demand for participation in formal and non-formal continuous education and adult education structures has significantly increased. The causes behind this evolution are characterized as exogenous and endogenous. The former refer to external pressures exerted on individuals to participate again in the educational process and also to the potential rewards if they do so. Intrinsic motivation, on the other hand, refers to internal individual reasons - personal growth and cultivation, a better quality of life, improved self-esteem, etc. (Ryan & Deci, 2000; Kontakos & Govaris, 2006). Based on these trends, this paper focuses on the issue of postgraduate studies in Greece, classified by field of study and academic institution for the years 2011 and 2016. It does not examine motivations but attempts, in principle, to capture the overall image of participation and, on a secondary level, to assess the scale and extent of potential changes in the number of enrolled postgraduate students in Greek universities for the academic years 2011 and 2016. The review of the data is based on the available data from ETER¹.

¹ The ETER (European Tertiary Education Register) is a database that collects and provides information about the Higher Education Institutions (HEIs) of Europe with regards to their basic characteristics, geographical location, the fields of study of, their educational and research activities, finances (income and expenses), staff, students and graduates.

The relevance of this paper lies in the fact that it studies the changes in the number and distribution of postgraduate students by field of study, over a set period of time between 2011 and 2016, the first and the last year for which information is provided by ETER, thus allowing comparisons to be made with the situation in other countries. They also coincide with the beginning and the peak of the economic crisis that has affected Greece for the last decade.

In the first part, there is a presentation of a bibliographic review of the legislative framework for postgraduate studies in Greece since 1992, which was the starting point for the establishment of the first organized Masters programme. This is followed by the methodology used for the extraction of data and, finally, the paper ends with the results that emerged from the examination of the ETER data.

2. Postgraduate studies in Greece: a bibliographical framework

Up until the beginning of the 1990s, few postgraduate programmes were offered in Greece and graduates who wished to continue their studies primarily applied to institutions abroad. This changed from the mid-1990s onwards, with EU-subsidized postgraduate programmes and the rapid growth of self-funded public universities dramatically altering the structure and image of the country's higher education system (Vassilopoulos et al., 2020).

In 1992, the enactment of Law 2083/1992 "Modernization of Higher Education" revised the institutional framework for postgraduate studies and had as a result the establishment of the first organized Postgraduate Programmes. The law outlines the responsibility of higher education institutions to organize, approve and operate Masters programmes related to their purposes and subject matter. These postgraduate studies should aim to promote scientific knowledge, with the view of covering the country's research, educational and development needs. Both domestic and foreign university graduates could participate in postgraduate programmes and the selection criteria included first degrees and completed individual courses, the candidate's diploma thesis, the knowledge of a second foreign language and possible research activities. The allocated duration of the postgraduate program was at least one academic year, with diploma thesis a prerequisite for obtaining the degree². Also, Higher Education Institutions could collaborate with research institutes, making it accessible to students to complete internships and research activities there.

The adoption of this law contributed to the rapid increase of Masters programmes, resulting in the establishment of 115 Postgraduate Programmes in the period between 1993-96³. Moreover, after the start of the Bologna Process in 2001, Law 2916/2001⁴ was passed, providing Greek "Polytechnic colleges (TEI in Greek)" the opportunity to organize Masters programmes in collaboration with domestic or foreign universities. In 2004, Law 3255/2004 abolished the requirement for an 'excellent knowledge' of the Greek language for admission to a master's degree and promoted transnational cooperation for the creation of joint postgraduate study programmes with universities in other countries⁵.

"The institutional framework for postgraduate studies was again redefined in 2008 with Law 3685/2008. Polytechnic colleges (TEI in Greek) were further enhanced, by being able to offer autonomous Postgraduate Programmes, as well as in collaboration with university departments⁶". According to Article 10, Greek universities could cooperate with like-minded institutions abroad to create joint postgraduate programmes. For this purpose, a Special Protocol of Cooperation between the collaborating institutions was established, which determined the object of study, the duration, the obligations and the rights of the participants, the sources of funding, etc., in accordance with the applicable legal framework of postgraduate studies in each cooperating country.

² Government Gazette, Law 2083 / Government Gazette 159 / t. A' / 21-9-1992

³ Apostoli S. (2006), ELIAMEP Research on University Education, Postgraduate Programs in Greek Universities Today, Retrieved June 1, 2021 from http://www.eliamep.gr/wpcontent/uploads/2008/07/metaptyxiaka_ch22.

⁴ Greek Government Gazette, Law 2916/2001 / Government Gazette 114 / A / 11-6-2001

⁵ Greek Government Gazette, Law 3255 / 2004- Government Gazette 138 / A / 22-7-2004

⁶ Greek Government Gazette, Law No. 3685- Government Gazette A 148 / 16.07.2008

In 2011, Law 4009/2011 integrated the Masters programmes in the strategic planning of universities, with the aim of promoting knowledge, developing research and meeting the educational, research and development needs of the country. A Special Committee for the Masters programmes prepared the study program, which was approved by the Rector after a recommendation by the Senate. In addition, individual aspects of the curriculum content were set to be reviewed annually⁷.

Since 2012, with Law 4076/2012⁸, university departments may "independently organize or co-organize postgraduate programmes among themselves with the language of instruction being, in whole or in part, a foreign language".

A further legal act which brought about important reforms in Greek Postgraduate Education was Law 4485/2017. The new law referred to the administrative bodies of the Masters programmes. More specifically, it postulated that the Senate have the main responsibility for academic, organizational, administrative and financial issues, while the Department Assembly⁹ would appoint the members of the Coordinating Committee and be responsible for organizing the curriculum. It would also create selection committees for prospective postgraduate or doctoral students and confirm the completion of their studies and subsequent graduation. Postgraduate Studies Committees include the Vice Rector for Academic Affairs as president, the Deans of the institution and the Director of the Masters programmes¹⁰. Their duration (Article 33) must be at least two semesters, and a thesis is mandatory. Also, for the first time, part-time study is provided for working students, as well as the possibility of suspending study for up to two semesters. Programmes may begin in the winter or spring semester and students are not provided with textbooks. For the selection of the candidates (article 34) the grade awarded for the first cycle of study¹¹, the overall grade of the degree, the diploma thesis, any research and professional activity and knowledge of at least one foreign language are all criteria taken into account.

In the previous law (Law 4076/2012), tuition fees were instated for Postgraduate Programmes. The new law diversified this provision and provided the possibility of exemption from tuition fees for students whose individual (if applicable) income did not exceed 100% of the cost (up to €7600) and family income 70% (up to €5,300) of the national median of available equivalent income according to data by the Hellenic Statistical Authority (ELSTAT). Students who do not pay tuition fees could not exceed 30% of course participants and were exempt from a single Masters programmes only.

In summary, since the start of the Bologna Process (1999) and the creation of the European Higher Education Area (EHEA), Higher Education in the EHEA countries consists of three cycles¹². Postgraduate studies are the second cycle and correspond to level 7 of the European Qualifications Framework (EQF)¹³. For their successful completion, students must complete courses worth 60-120 credits (ECTS) lasting 1-2 years. Masters programmes in Greece, for the most part, have a duration of 1.5 to 2 years and yield 90-120 ECTS¹⁴, require the payment of tuition fees for at least 70% of students and maintain an extrovert orientation as a number of possibilities for international collaborations have been established by law. Finally, there is a differentiation of Greek universities in terms of the second cycle of study, with university faculties whose minimum duration of study of the first cycle is 10 academic semesters¹⁵ for obtaining a degree "Technical Universities" leading, under certain conditions, to the award of a single, free postgraduate degree in the specialty of the department¹⁶.

⁷ Greek Government Gazette, Law No. 4009, Government Gazette A 195 / 6.9.2011

⁸ Greek Government Gazette, Law No. 4076, Government Gazette A'159 / 10.8.2012

⁹ In case of interdepartmental MSc, the Special Interdepartmental or Inter-institutional Committee

¹⁰ Greek Government Gazette, Law 4485 / Government Gazette 114 / t. A' / 04-08-2017, Article 31

¹¹ Degrees from foreign institutions require recognition by the Interdisciplinary Organization for the Recognition of Academic Degrees and Information / DOATAP)

¹² 1st cycle: Undergraduate studies - level 6, 2nd cycle: Postgraduate studies - level 7 and 3rd cycle: Doctoral studies - level 8

¹³ Retrieved from European Higher Education Area and Bologna Process: European Higher Education Area and Bologna Process (eha.info)

¹⁴ Retrieved from European Commission: https://ec.europa.eu/education/resources-and-tools/europeancredit-transfer-and-accumulation-system-ects_en

¹⁵ They attribute at least 300 ECTS

¹⁶ Greek Government Gazette, Law 4485 / Government Gazette 114 / t. A' / 04-08-2017

Currently in Greece, according to the data of the Ministry of Education for 2021, there are 795 MPS, of which 189 are provided remotely, 179 without tuition, 309 provide part-time study and 115 also offered in English.

Table 1: Number of Postgraduate Programmes by Sector of Studies (2021)

Department of Studies	Number of Postgraduate Programmes
Humanities	128
Agricultural Schools	25
Environmental Sciences	55
Education	12
Health Sciences	148
Welfare and Sports Sciences	2
Natural Sciences	167
Social Sciences	69
Law	13
Foreign Languages	2
Business	139
Political science	14
Arts	23
Tourism Studies	1
Technological Sciences	129

Source: <http://masters.minedu.gov.gr/>

3. Methodology

This paper attempts to analyze and compare the data provided by ETER¹⁷ on the number of enrolled postgraduate students for the years 2011 and 2016 per field of study for each University Institution in the country¹⁸. These two years were chosen as they are the first (2011) and last (2016) years for which ETER provides data. The first step in the research was to look for and go through the relevant figures on the ETER database. This was followed by recording data concerning universities, converting the numbers of postgraduate students into percentages and creating tables. Based on further data provided by Universities, graphs depicting the percentage of enrolled postgraduate students per year and University were also created. Polytechnic colleges (TEI in Greek) were not

¹⁷ ETER focusses on universities and, therefore, includes institutions that are recognized as distinct organizations and nationally recognized as universities, with their main activity being the provision of education at higher education level (Lepori, Ploder, Wagner-Schuster & Gunnes, 2014). Its main responsibility is the provision of data at the level of HEIs, in addition to educational statistics at the country level provided by EUROSTAT (Lepori, Ploder, Wagner-Schuster & Gunnes, 2014). ETER is an initiative of the European Commission and is fully funded by it. Responsible for its management is the Director General for Education, Youth, Sport and Culture of the European Commission in cooperation with EUROSTAT and the National Statistical Authorities of the participating countries. For statistics relating to educational activities and staff, ETER complies with the definitions in the UNESCO / EUROSTAT / OECD guide to educational statistics. The main difference with EUROSTAT data is that ETER provides data for each institution separately and not for all institutions in each country. Almost all data are provided by the National Statistical Authorities of the countries but also by EUROSTAT, while in some cases information has been obtained from public access websites, such as the official websites of universities.

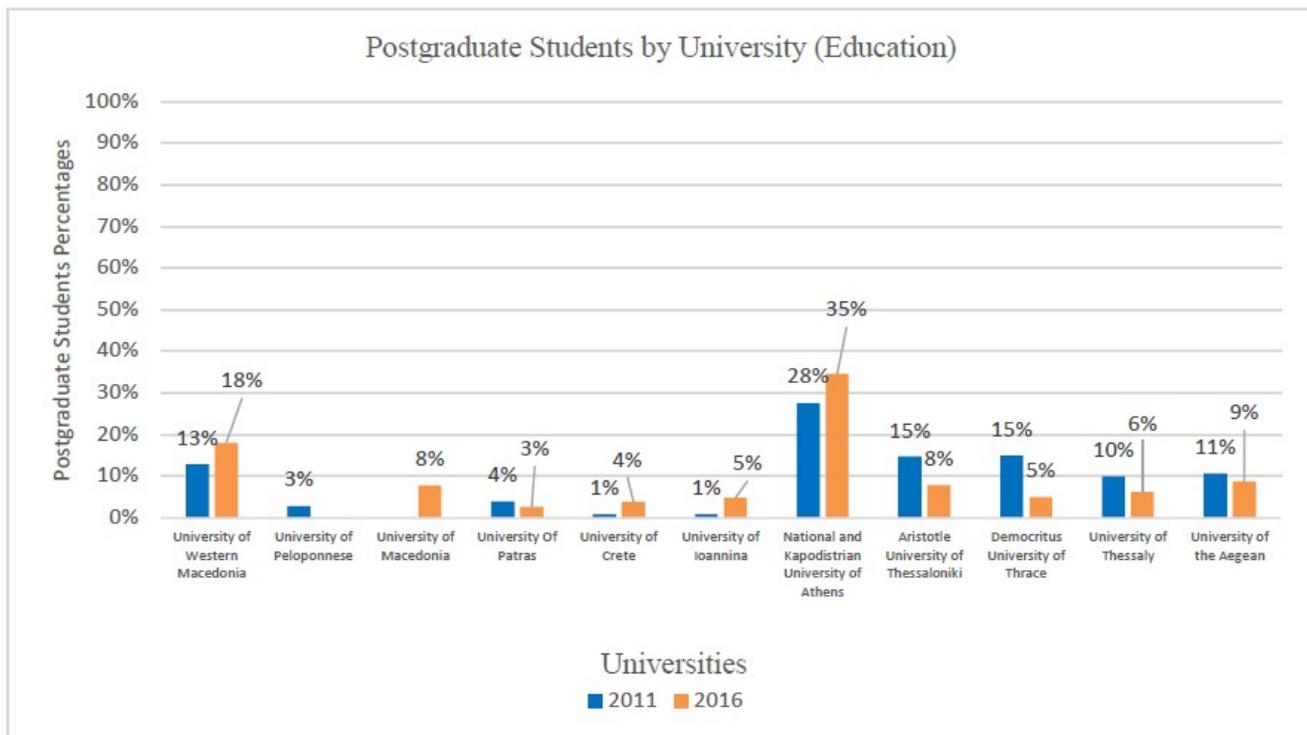
¹⁸ ETER distinguishes ten (10) fields of study: Education, Arts and Humanities, Social Sciences and Journalism, Business Administration, Natural Sciences-Mathematics and Statistics, Information and Communication Technologies, Engineering, Agriculture-Forestry-Fisheries, Veterinary and Services. <https://www.eter-project.com/#/home>

included in the present work, as with Law 4610/2019 their operation was terminated or they were merged with existing university departments.

One limitation encountered during our research is that for some of the university data for 2011 or 2016 are not available and that some institutions did not have Masters programmes in certain fields of study, resulting in difficulties when comparing the data.

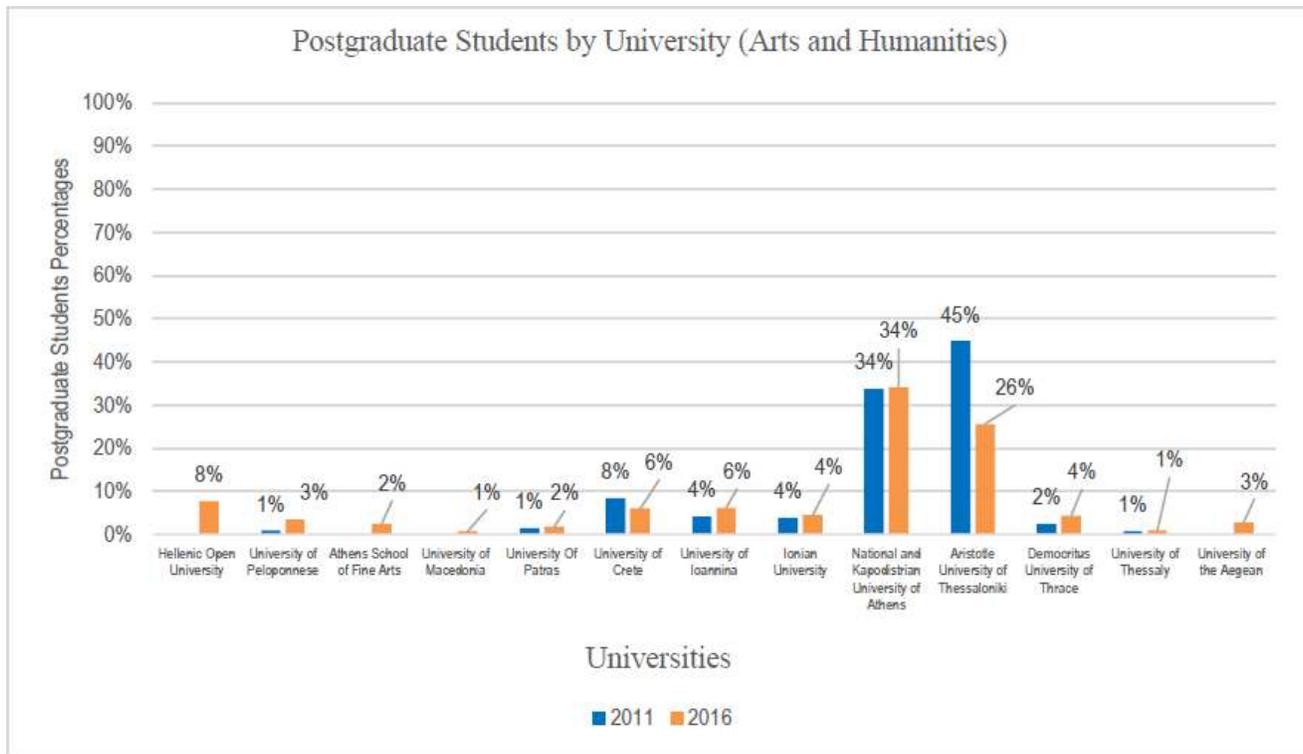
4. Presentation of results

The graphs presented below show the percentage of postgraduate students who attended each university by field of study for the years 2011 and 2016. The year 2011 is depicted in blue and 2016 in orange.



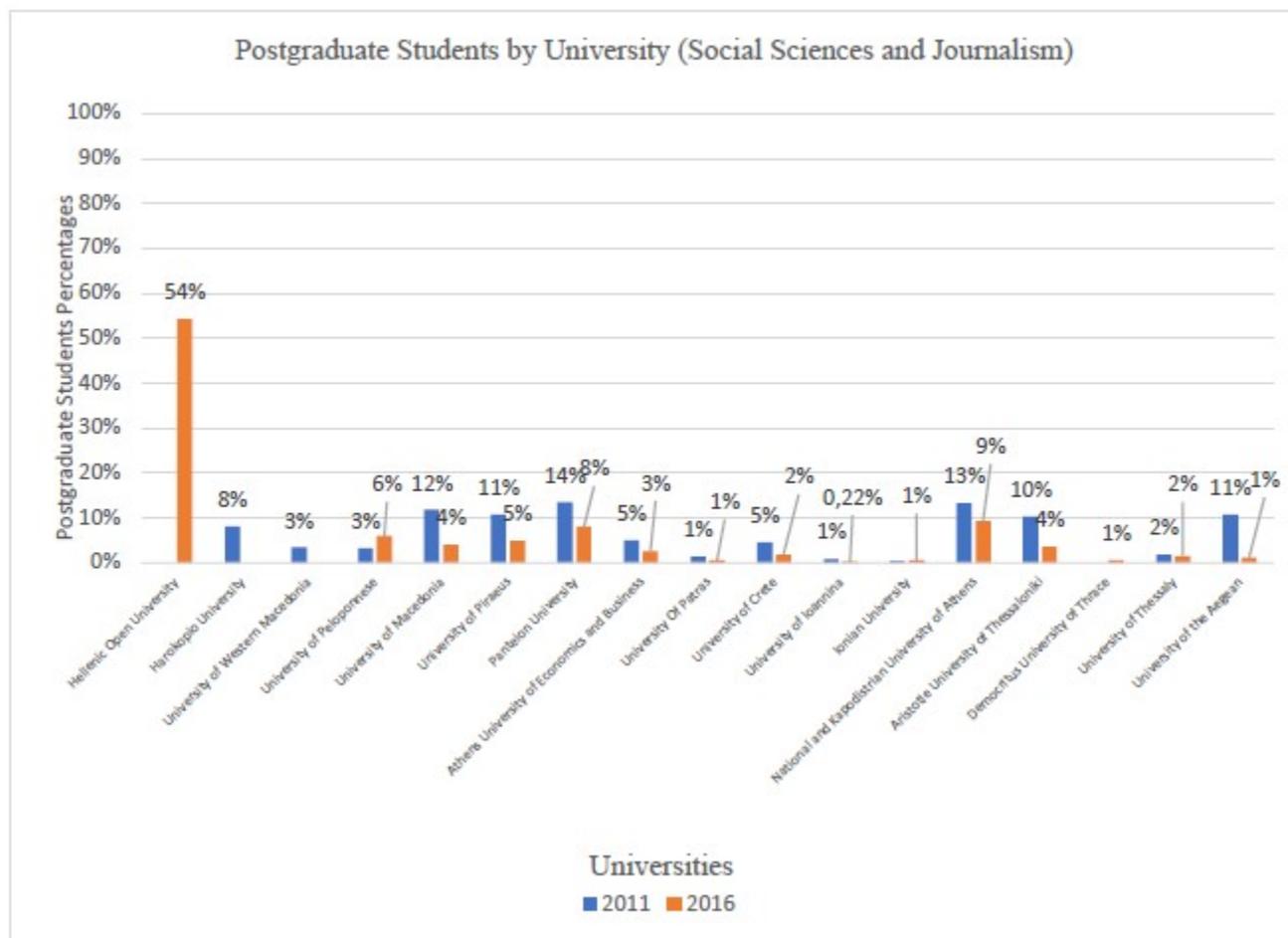
Graph 1: Postgraduate students in the field of Education by University (2011 & 2016)

From looking at the above graph, which shows the percentage of postgraduate students in Education, it becomes clear that, based on ETER data, the National and Kapodistrian University of Athens (NKUA) had the largest percentage of enrolled students in both 2011 and in 2016, since the participation rates amounted to 28% (1,122 students) and 35% (1,717 students) respectively. The percentage of postgraduate student participation at NKUA increased by 7%. A similar increase in student numbers between the two years is observed at the Universities of Western Macedonia (from 13% to 18%), Crete (from 1% to 4%) and Ioannina (from 1% to 5%). However, many universities are losing students. Such cases are the University of Patras which from 4% (166 students) in 2011 recorded a slight decrease of 1%, with 133 postgraduate students enrolled in 2016 (3%); the Aristotle University of Thessaloniki (AUnT) which from 15% (599 students) fell to 8% (395 students); the Democritus University of Thrace (DUTH), which from 15% (608 students) in 2011 fell to 5% (254 students) in 2016; the University of Thessaly which from 10% (406 students) decreased to 6% (311 students); and, finally, the University of the Aegean which from 11% (433 students) fell to 9% (437 students). The University of Peloponnese offered a postgraduate degree in Education in 2011 that was attended by 3% of the total (119 students) of postgraduate students, but later the Masters programmes program was abolished. Conversely, the University of Macedonia did not offer a Master's degree in Education in 2011, but in 2016 there were 389 postgraduate students in this field (8%). In total, there was an increase in the overall number of postgraduate students in 2016 compared to 2011. In the field of Arts and Humanities, there were 4,056 postgraduate students in 2011 and 4,970 in 2016.



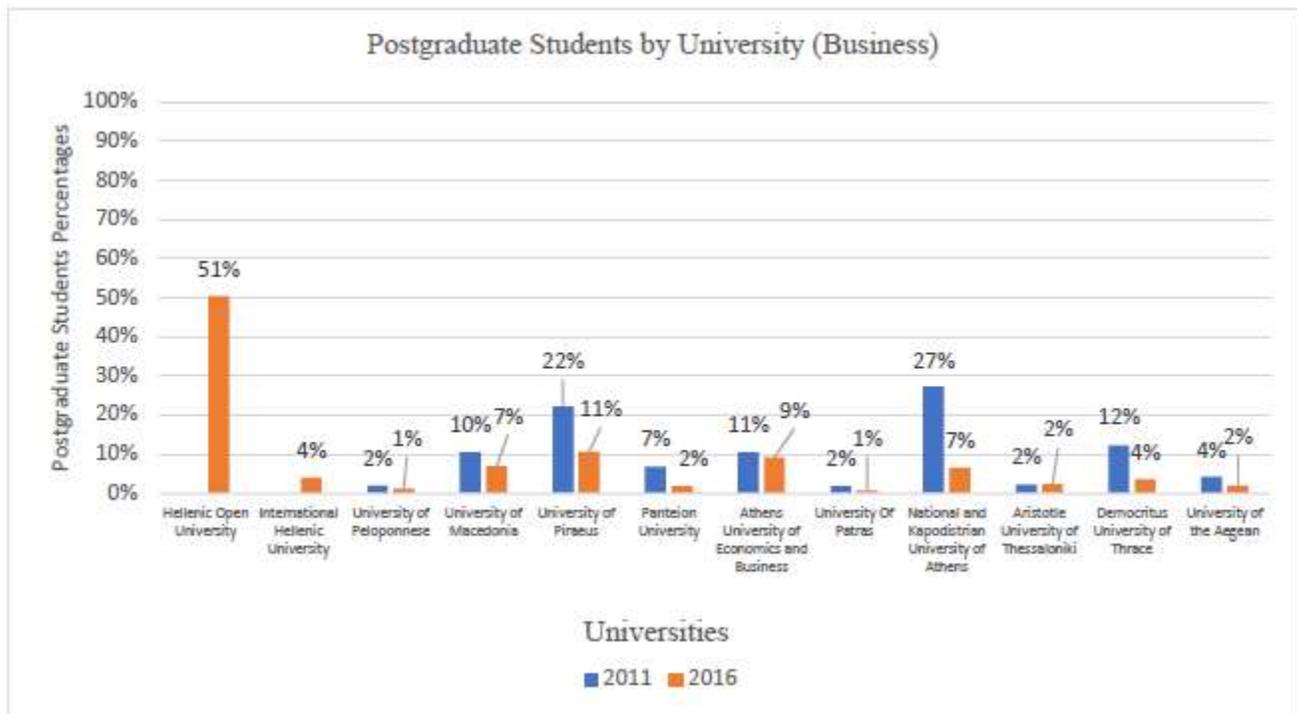
Graph 2: Postgraduate students in the field of Arts and Humanities by University (2011 & 2016)

Graph 2 depicts the distribution of students in Masters programmes related to the Arts and Humanities. It is evident that the Universities with the largest number of students for both years under examination are NKUA and AUTH. The percentage for NKUA was 34% and remained the same for both years (1,926 and 2,646 students respectively), while at AUTH there was a significant decrease in the number of postgraduate students, from 2,556 students in 2011 (45%) to 1,984 students in 2016 (percentage 26%). The Ionian University and the University of Thessaly recorded a stable course with a percentage of 4%, the same as the University of Thessaly with a percentage of 1% for both years. A small increase (1%-2%) in the percentages of postgraduate students is observed at: the University of Peloponnese from 28 students in 2011 (1%) to 269 students (3%) in 2016; the University of Patras, which saw 83 students (1%) in 2011 and 128 students (2%) in 2016; the University of Ioannina with 239 students (4%) in 2011 and 482 students (6%) in 2016; and, finally, the DUTH where the number of students increased from 137 (2%) in 2011 to 337 (4%) in 2016. A small decrease in students was observed at the University of Crete, which had 474 (8%) students in 2011 and 465 (6%) in 2016. Universities which in 2011 did not offer a Master's degree in Arts and Humanities are the Hellenic Open University (HOU), the School of Fine Arts, the University of Macedonia and the University of the Aegean. In 2016, the HOU gathered 8% of the postgraduate students in this field of study (590 students), the School of Fine Arts 2% (183 students), the University of Macedonia 1% (56 students) and the University of the Aegean 3% (213 students). The total number of postgraduate students in the Arts and Humanities increased from 5,716 in 2011 to 7,759 in 2016.



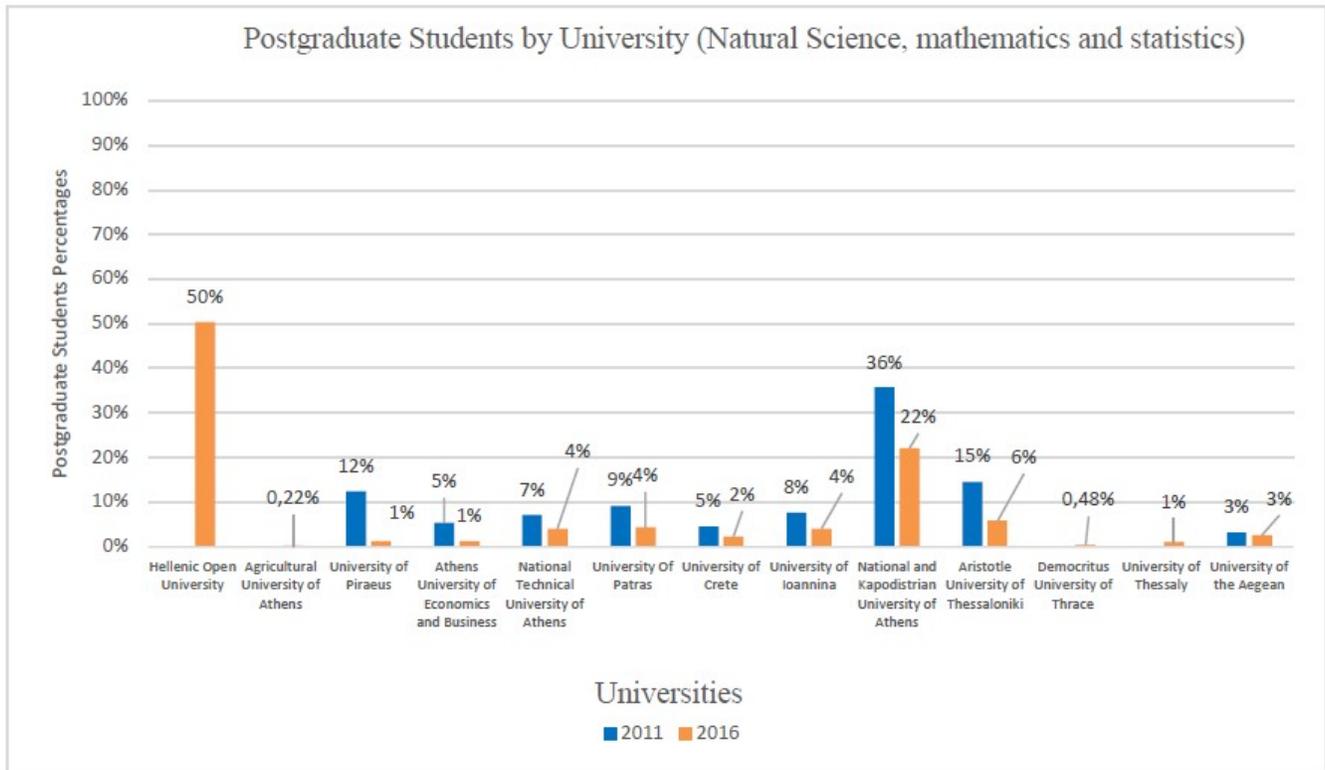
Graph 3: Postgraduate students in the field of Social Sciences and Journalism by University (2011 & 2016)

Graph 3 shows the percentages of postgraduate students in the field of Social Sciences and Journalism for the years 2011 and 2016. It is clear that in 2016 the majority of postgraduate students studied at HOU, since the University has a majority share of 54% (6,407 students). In 2011, the HOU did not offer a master's degree in the same field, but enrollment in the courses on offer in 2016 even surpassed other universities which traditionally offered corresponding degrees several years ago, such as the Panteion University, the University of Piraeus, NKUA, the University of the Aegean, and others. Evidently, since the HOU established Masters programmes in this field, the number of students attending other universities has decreased. Typical cases are: the University of Macedonia which saw its percentages decrease from 12% (511 students) to 4% (488 students) in 2016; the University of Piraeus, which decreased by 6% (from 11% to 5%); Panteion, from 14% (581 students) to 8% (949 students); the Athens University of Economics and Business, from 5% (217 students) fell to 3% (312 students); the University of Crete from 5% (197 students) to 2% (230 students); the NKUA, from 13% (574 students) to 9% (1,112 students); the ATh from 10% (447 students) to 4% (422 students); and, finally, the University of the Aegean from 11% (468 students) to 1% (151 students). Only the University of Patras and the University of Thessaly maintained their percentages (1% and 2% respectively). Moreover, the only university with an increased participation rate of postgraduate students in its Masters programmes is the University of Peloponnese, which gathered 3% of students (141 students) in 2011 and 6% (703 students) in 2016. Harokopio and the University of Western Macedonia offered Masters programmes in Social Sciences and Journalism in 2011 (percentages 8%, 3%, 1% respectively), but it appears that in 2016 these were abolished. On the contrary, the DUTH had not established a corresponding Masters programme in 2011 but added 1% (63 students) of the enrolled students in the specific field in 2016. The University of Ioannina gathered 1% (41 students) of postgraduate students in 2011, and 0.22% in 2016 (26 students). Overall, the number of students in the Social Sciences and Journalism fields increased significantly between the two years; in 2011 there were 4,302 students, while in 2016 the numbers reached 11,770.



Graph 4: Postgraduate students in the field of Business Administration by University (2011 & 2016)

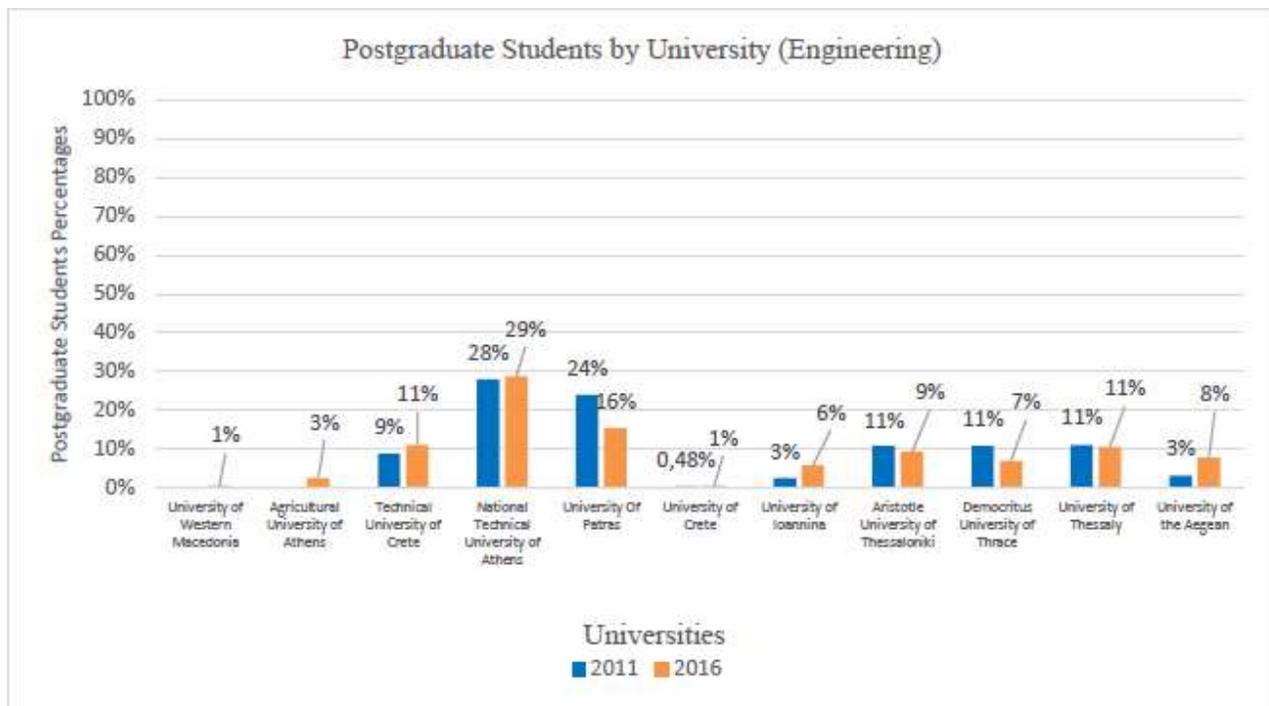
The ETER data for the field of Business Administration highlights once more the fact that the HOU saw the largest percentage of postgraduate students, as is clearly shown in Graph 4: in 2016, half of the postgraduate students in the field (51%) attended this university. Data on this is missing for the year 2011. In 2016, HOU is followed by the University of Piraeus, with a percentage of 11% (1,595 students) in 2016, a decrease from the 22% of students in 2011 (1,296 students). Third in student numbers was the Athens University of Economics and Business with a percentage of 9% (1,371 students) in 2016, although it too saw a decrease from 11% (610 students) in 2011. Following are the Universities of Macedonia and NKUA with a percentage of 7%, a decrease from 10% (607 students) and 27% (1,578 students) respectively in 2011. The percentage for the University of Piraeus fell from 22% (1,296 students) in 2011 to 11% (1,595 students) in 2016. The above universities recorded the most significant decrease compared to the rest. The University of Patras saw a smaller decrease, from 2% (104 students) in 2011 to 1% (104 students) in 2016; DUTH from 12% (717 students) in 2011 to 4% (541 students) in 2016; Panteion from 7% (396 students) in 2011 to 2% (278 students) in 2016; and, finally, the University of the Aegean which went from 4% (242 students) in 2011 to only 2% (296 students) in 2016. The International University did not offer a corresponding Masters programmes in 2011 while in 2016, when one was established, it was chosen by 596 students (4%). The Aristotle University of Thessaloniki remained stable with a percentage of 2% (131 and 358 students respectively for the two years). In this area, however, it is clear from the graph that the HOU absorbed a large number of students from almost all other universities, which saw their postgraduate student numbers decrease significantly in 2016 compared to 2011. Overall, in the Masters programmes in the sector of Business Administration, the number of students increased sharply in 2016. In 2011 there were a total of 5,804 students in the Masters programmes, whereas this number climbed to 14,865 students in 2016.



Graph 5: Postgraduate students in the field of Natural Sciences, Mathematics and Statistics by University (2011 & 2016)

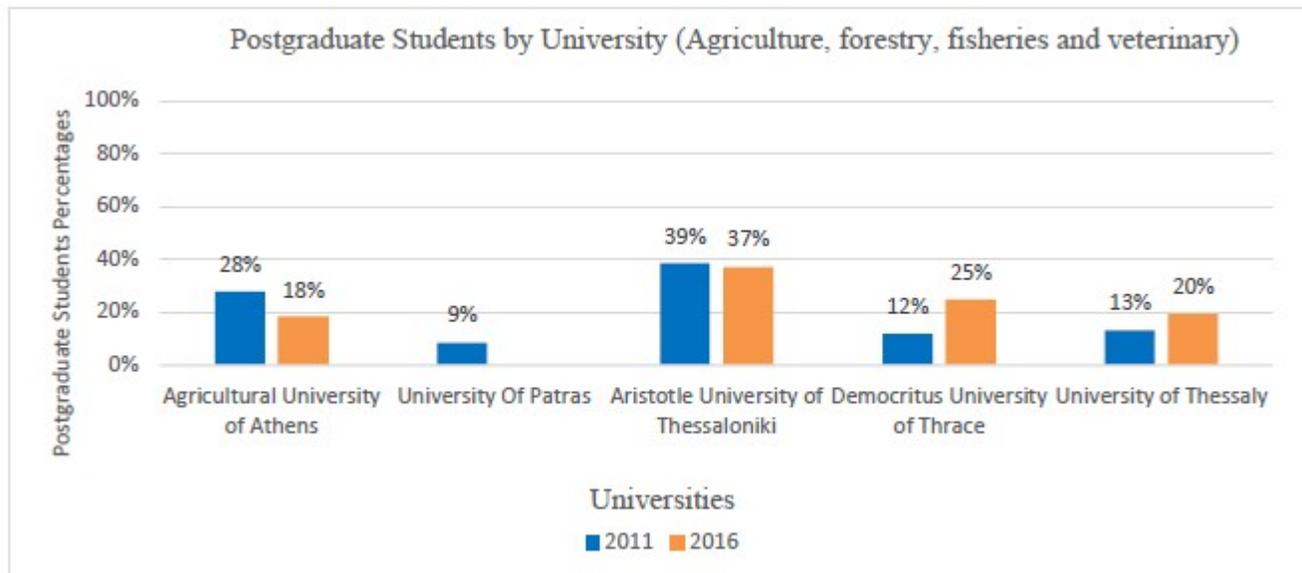
Graph 5 shows the postgraduate students in the Masters programmes in Natural Sciences, Mathematics and Statistics. Once again it is clear that more students enrolled on courses at the HOU compared to all other universities. Specifically, half of the students (50%) chose the Masters programmes provided by HOU in 2016. A comparison with 2011 cannot be made, as there are no ETER data for the HOU for that year. NKUA is the next University which gathered the most number of students with a percentage of 22% (2,468 students) in 2016; however, it also saw a decrease from its percentage for 2011, which was 36% (1,959 students). It is followed by the AUTH with a percentage of 15% (801 students) in 2011 and 6% (646 students) in 2016, again showing a decrease in the percentage of students. It is characteristic that the percentage of students in almost all other universities decreased dramatically. Specifically, the University of Piraeus (from 12% to 1%), the Athens University of Economics (from 5% to 1%), the NTUA (from 7% to 4%), the University of Patras (from 9% to 4%), the University of Crete (from 5% to 2%) and the University of Ioannina (from 8% to 4%). The only exception is the University of the Aegean which maintained a percentage of 3% (177 and 289 students for the years 2011 and 2016) for both years, which indicates a steady course and a stable policy implemented by this university.

The Agricultural University of Athens, the DUTH and the University of Thessaly did not run postgraduate studies in the field of Natural Sciences, Mathematics and Statistics in 2011, and even though these seem to have been established by 2016, very few students were enrolled. The Agricultural University of Athens attracted 24 students (percentage 0.22%), the DUTH 53 students (percentage 0.48%) and the University of Thessaly 131 students (percentage 1%). In total, the number of postgraduate students in this field has more than doubled over the years, with 5,482 enrolled students in 2011 and 11,137 students in 2016.



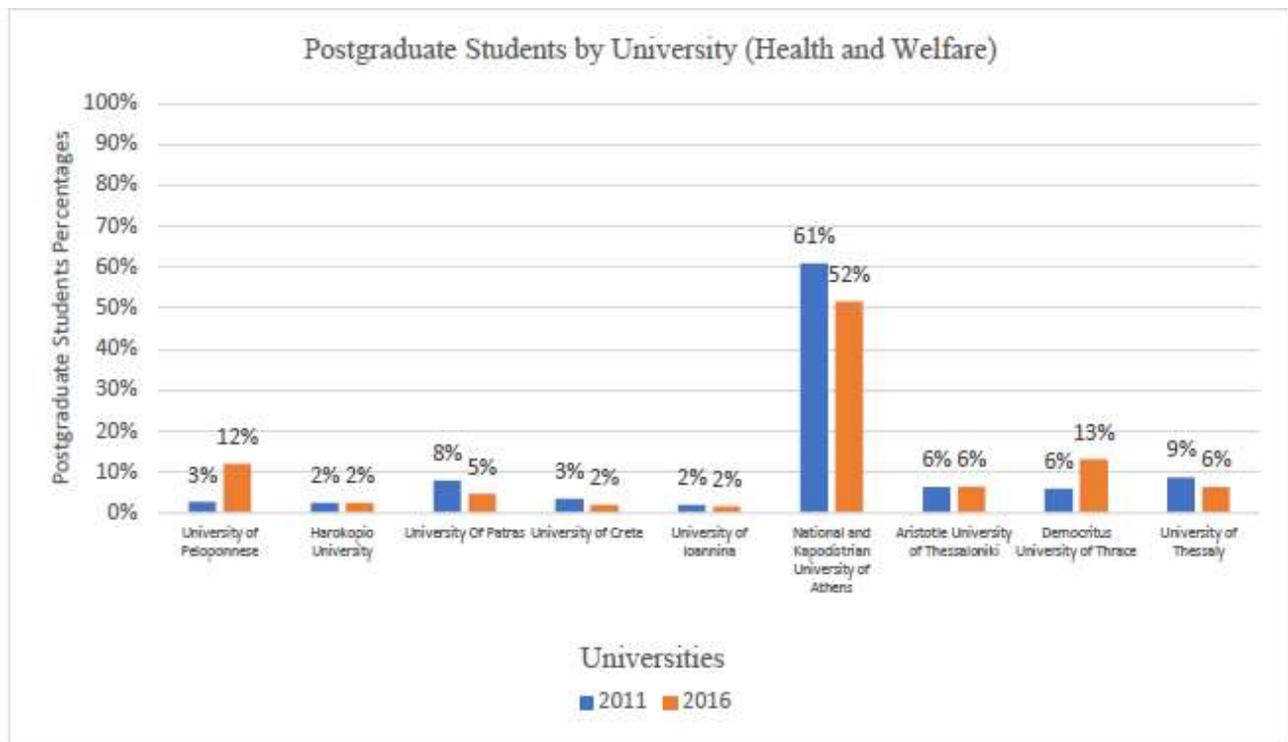
Graph 6: Postgraduate students in Engineering by University (2011 & 2016)

From the review of ETER data for postgraduate students in the field of Engineering, the National Technical University of Athens had the highest rates of postgraduate studies for both years. More specifically, in 2011 there 989 postgraduate students (a percentage of 28%) increasing to 1206 (with a percentage of 29%) in 2016. Although the University of Patras also saw a decrease from 24% in 2011 (with 845 students) to 16% (with 653 students), it falls into second place in the overall table. An increase was observed for the Technical University of Crete, which in 2011 had 309 postgraduate students (a percentage of 9%) while in 2016 this amounted to 467 (a percentage of 11%). The University of Thessaly maintained its percentage at 11%, even though it saw an increase of about 50 postgraduate students from 395 in 2011 to 448 in 2016. The number of postgraduate students remained the same at the Aristotle University of Thessaloniki, which in 2011 had 376 students (11%) and 388 (9%) in 2016. A significant increase was observed at the University of the Aegean, which tripled its number of postgraduate students from 112 (3%) to 333 (8%) in 2016. A somewhat similar increase was observed for the University of Ioannina with 91 postgraduate students (3%) in 2011 and 248 (6%) in 2016. Conversely, there was a decrease in postgraduate students at the Democritus University of Thrace, from 381 (11%) in 2011 to 295 (7%) in 2016. While the Agricultural University of Athens and the University of Western Macedonia did not offer a master's degree in this field 2011, in 2016 112 students (3%) and 23 students (1%) were admitted on respective courses. As shown in the graph, in 2011 the University of Crete gathered 0.48% of postgraduate students (17 students) while in 2016 it had 23 postgraduate students (1%). Following the overall trend, graduate students in Engineering increased over the years, from 3,515 in 2011 to 4,196 in 2016.



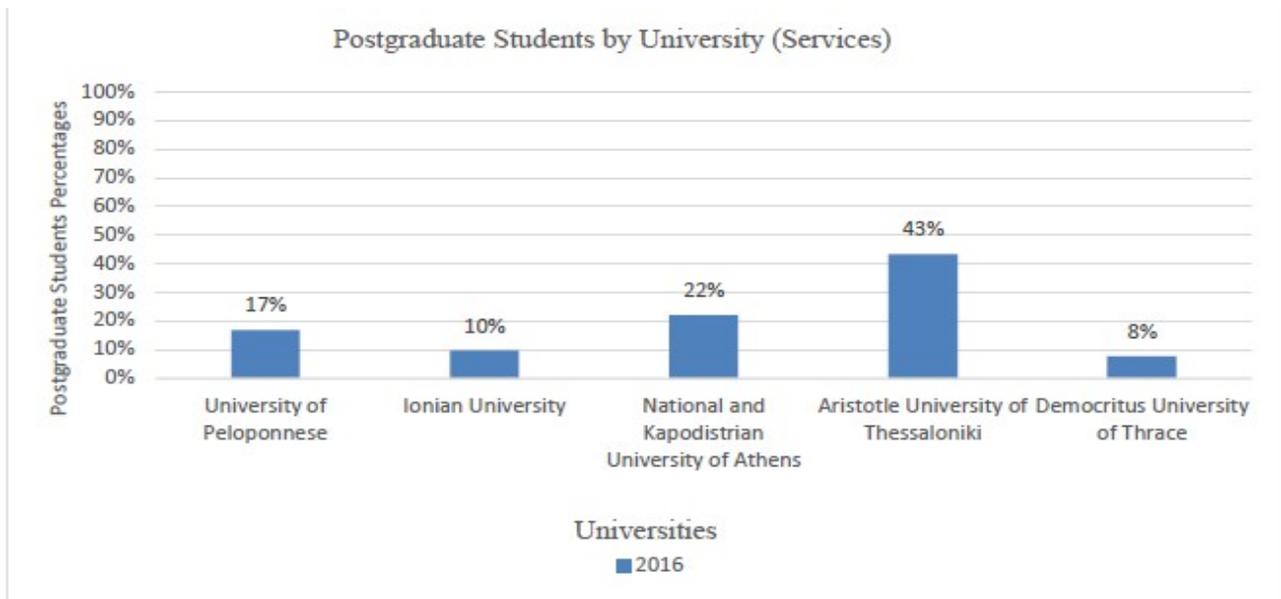
Graph 7: Postgraduate students in the field of Agriculture, Forestry, Fisheries and Veterinary Medicine by University (2011 & 2016)

In the field of Agriculture, Forestry, Fisheries and Veterinary Medicine, the Aristotle University of Thessaloniki gathered the largest percentage of postgraduate students, notwithstanding a 2% decrease. Namely, 389 postgraduate students studied at the Aristotle University of Thessaloniki (39%) in 2011, while this number was 227 (37%) in 2016. A corresponding decrease in postgraduate students was found in the Agricultural University of Athens, which in 2011 saw 283 students (28%) and 111 (18%) in 2016. The Democritus University of Thrace managed to increase its percentage, as in 2011 there were 118 postgraduate students (12%) and 151 (25%) in 2016. Even though the University of Thessaly actually accepted a reduced number of students in 2016, it nonetheless managed to increase its percentage from 13% in 2011 (133 students) to 20% (119 students) in 2016. Finally, the University of Patras in 2011 had 87 postgraduate students (9%) while in 2016 it did not run postgraduate programmes in this specific field of study. Overall, students in Agriculture, Forestry, Fisheries and Veterinary Medicine decreased over the years from 1,010 in 2011 to 608 in 2016.



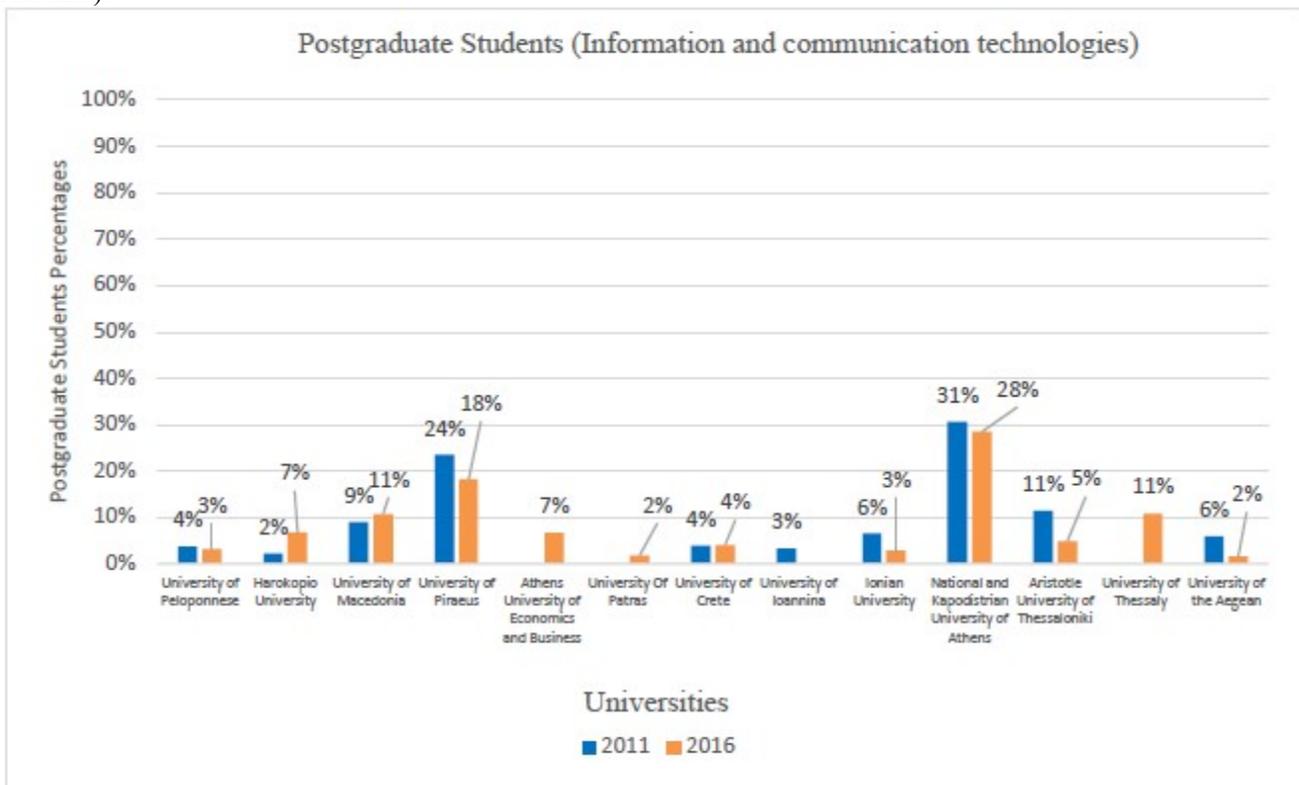
Graph 8: Postgraduate students in the field of Health and Welfare (2011 & 2016).

AS shown in Graph 8, in the field of Health and Welfare the majority of postgraduate students chose to study at the National and Kapodistrian University of Athens. In 2011, NKUA saw 2704 postgraduate students (61%), increasing the number in 2016 to 3492, even though its overall share decreased to 52%. A significant increase was observed at the Democritus University of Thrace, from 261 postgraduate students (6%) in 2011 to 881 (13%) in 2016. The number of postgraduate students also significantly increased for the University of Peloponnese, which went from having 116 postgraduate students (3%) in 2011 to 813 (12%) in 2016. Health and Welfare Postgraduate students attending the University of Thessaly increased from 382 (9%) in 2011 to 422 in 2016 (6%). The Aristotle University of Thessaloniki maintained its percentage at 6% for both years, although the actual number of students in 2016 amounted to 432, compared to 278 in 2011. The University of Patras, saw a small decrease from 347 postgraduate students (8%) in 2011 to 311 (5%) in 2016. A similar decrease was observed at the University of Crete, with 154 postgraduate students in 2011(3%) and 137 (2%) in 2016. The University of Ioannina saw a small increase of students from 84 (2%) in 2011 to 109 (2%) in 2016, but without an accompanying increase in its overall percentage. At Harokopio University there was an increase from 109 students in 2011 to 166 in 2016 with the percentage of the institution also remaining at 2% for both years. Overall, the number of postgraduate students in Health and Welfare increased over the years from 4,435 in 2011 to 6,763 in 2016.



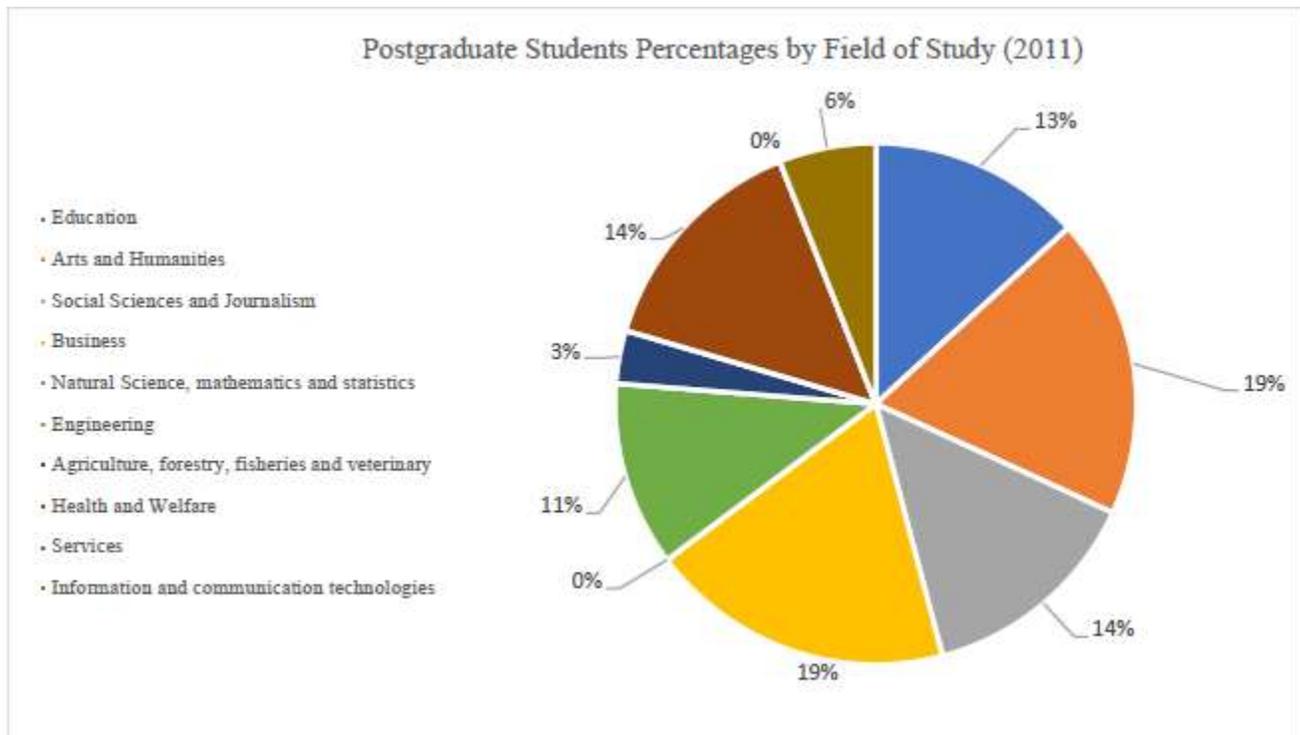
Graph 9: Postgraduate students in the field of Services (2011 & 2016)

No ETER data were found for the number of postgraduate students in the field of Services for 2011. To elaborate on this, it is assumed that either the data for the respective university (m) are not available or the universities did not have postgraduate studies in the respective field (a) and therefore there is insufficient data on the number of postgraduate students. Regarding 2016, the majority of postgraduate students studied at the Aristotle University of Thessaloniki with a percentage of 43% (672 students), followed by the National and Kapodistrian University of Athens with 22% (with 341 students) and the University of Peloponnese with 17% (263 students). It is followed by the Ionian University with 10% (151 students) and the Democritus University of Thrace with 8% (119 students).



Graph 10: Postgraduate students in the field of Information and Communication Technologies (2011 & 2016)

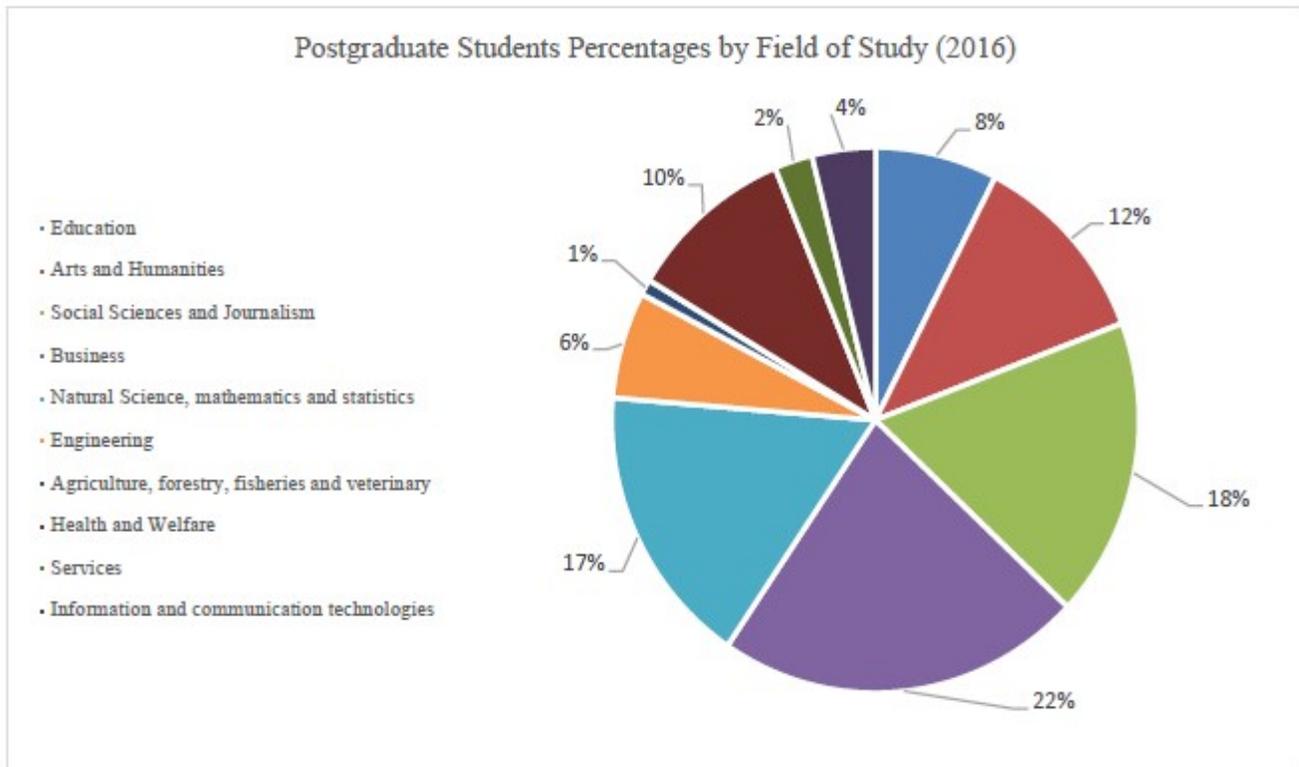
Graph 10 shows the data for the field of Information and Communication Technologies. Here too, the majority of students chose the National and Kapodistrian University of Athens for their studies. In five years, NKUA managed to increase the number of its postgraduate students from 562 (31%) in 2011 to 729 (28%) in 2016. The University of Piraeus also managed to increase the number of its postgraduate students, from 433 (24%) in 2011 to 466 in 2016 (18%). An increase was also observed at the University of Macedonia from 166 (9%) to 275 (11%) in 2016. The University of Economics, the University of Patras and the University of Thessaly in 2011 did not offer postgraduate programmes in the field of Information Technologies and Communication. However, in 2016 their postgraduate students rose to 169 for the Athens University of Economics and Business (7%), 47 for the University of Patras (2%) and 279 for the University of Thessaly (11%). Harokopio University significantly increased the number of its postgraduate students from 41 (2%) in 2011 to 174 (7%) in 2016. Postgraduate students in the field of Information and Communication Technologies decreased significantly for the Aristotle University of Thessaloniki from 211 (11%) in 2011 to 124 (5%) in 2016. In 2016, there was a decrease of 1% of the percentage of postgraduate students at the University of Peloponnese, which saw 68 postgraduate students in 2011 (4%) and 79 in 2016 (3%). Similarly, the numbers for the Ionian University went from 119 postgraduate students (6%) to 74 (3%) in 2016. The number also fell for the University of the Aegean, with 108 students (6%) in 2011 to 42 (2%) in 2016. This shift in their percentages may be due to the establishment of a master's degree at the University of Patras, the University of Thessaly and the Athens University of Economics. The University of Ioannina in 2011 had 61 enrolled postgraduate students (3%) while in 2016 no postgraduate programmes were offered in this field. The University of Crete maintained its percentage, although the actual number of postgraduate students increased: in 2011, there were 72 postgraduate students (4%), amounting to 105 (4%) in 2016. Overall, postgraduate students in Information and Communication Technologies increased from 1,841 in 2011 to 2,563 in 2016.



Graph 11: Postgraduate students by Department of Studies (2011).

As seen in Graph 11, the highest percentage of students in 2011 was found in the Faculties in Business Administration, reaching 16% (5,804 postgraduate students). With the same percentage but fewer students were the Arts and Humanities (16%, or 5,716 students). These are followed by the Natural Sciences, Mathematics and Statistics with a percentage of 15% (5,482 students) and the Social Sciences with a percentage of 12% (4,435 students).

Departments in the Health and Welfare field saw similar numbers, with 4,435 postgraduate students (12%). The Masters programmes in the field of Education gathered 11% of the student population (4,056 students) and the field of Engineering 10%, with 3,515 postgraduate students. With a percentage of 5% are Information and Communication Technologies (1,841 postgraduate students) and last Agriculture, Forestry, Fisheries and Veterinary with a percentage of 3% (1,010 students). In total, there were 36,161 registered postgraduate students in Greece.



Graph 12: Postgraduate students by Department of Studies (2016).

From the figures in Graph 12, Faculties in Business Administration once again saw the majority of postgraduate students in 2016, with a percentage of 22% (with 14,865 postgraduate students), followed by the Social Sciences and Journalism with a percentage of 18% (with 11,770 postgraduate students). Third in number were the Natural Sciences, Mathematics and Statistics with 17% (with 11,137 postgraduate students), the Arts and Humanities with 12% (with 7,759 postgraduate students) and the Health and Well-being fields with 10% (with 6,763 postgraduate students). Studies in the field of Education were taken up by 4,970 postgraduate students (8%); in Engineering by 4,196 students (6%); in Information and Communication Technologies by 2,563 students (4%); and in Services by 1,546 students (2%). The fields of Agriculture, Forestry, Fisheries and Veterinary Medicine saw an even smaller number, with a percentage of 1% (608 students). The total number of postgraduate students in Greece in 2016 was 66,177.

5. Conclusions

Considering the all the data presented above, it is clear that the number of students who chose to continue their studies at postgraduate level increased over the years. In nine of the ten fields of study, with the sole exception being Agriculture, Forestry, Fisheries and Veterinary Medicine where there was a major decrease, the number of students rose significantly.

Between the two years, the distribution across different institutions changed. Generally, the HOU attracted the majority of postgraduate students with the establishment of its Masters programmes. This was observed in the following areas: Social Sciences and Journalism, Business Administration and Natural Sciences, Mathematics and Statistics. The only exception is in the field of Arts and Humanities, where the degree offered at the HOU, was not take up by the majority of students. It is worth mentioning that for the other fields of study no Masters programmes was offered by the HOU until the last year under consideration.

In 2011, the most popular fields of study were Business Administration, Arts and Humanities, Natural Sciences, Mathematics and Statistics. The fields of study with the greatest demand for postgraduate programmes in 2016 were Business Administration, Social Sciences and Journalism and Natural Sciences, Mathematics and Statistics. The ETER data clearly highlights that Business Administration and the Natural Sciences, Mathematics and Statistics traditionally attract the majority of postgraduate students.

Looking forward, it would be of particular interest to examine what reasons may have led to the increase of the number of postgraduate students in the above fields of study and study the Masters programmes courses on offer in relation to their social, economic and political contexts.

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