

**The emerging challenges faced by early career researchers:  
the case of Social Sciences in Greece**

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**Abstract**

*The present paper, using a sample of 40 departments from the scientific discipline of Social Sciences in Greece as a case study, attempts to highlight and describe the academic and working context in which Early Career Researchers (ECR), first as PhD candidates and after as new doctoral and postdoctoral researchers, are trying to build their academic career.*

**Keywords**

*Early Career Researchers, Greek HEIs, Social Science*

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## **1. Introduction**

The term Early Career Researcher (ECR) refers to researchers who are in the early years of their academic and research activity, including the period of research training (Elsevier, 2020). According to Friesike et al. (2022), within the scientific community, ECRs are considered to be PhD candidates, doctoral and postdoctoral researchers. PhD candidates are considered to be early-stage researchers, since by commencing their PhD they mark their inauguration of research activity and connection with the rest of the scientific community. This connection has an impact on the adoption of a research culture inherent to their field of research interest, as it concerns the way they interface and collaborate with the rest of the scientific discipline in which they operate (eg. the influence they receive on publication strategies and research goals) (Brew et al., 2017). As for doctoral and postdoctoral researchers, they move on from being students to becoming independent scientific researchers (Lovitts, 2008). During this period, they are often placed in temporary academic positions (e.g. as temporary lecturers), expand their research portfolio (e.g. scientific publications) and try to establish themselves in their chosen scientific discipline (Bourne & Friedberg, 2006; Castelló et al., 2015; Odom, 2014). However, despite being considered key drivers of academic research activity and the future of scientific research (Boulton, 2011), ECRs face challenges, such as publishing pressure (Goyanes et al., 2022), job insecurity (Brechelmacher et al., 2015) and limited funding resources (Antonowicz & Kwiek, 2014). Those challenges often act as obstacles in the development of their academic and research career (Deem, 2020; Kulkarni, 2015).

The present paper focuses on how international discourses on the situation of ECRs are implemented in local contexts, using the field of social sciences in Greece as a case study. The study focuses on the field of Social Sciences due to a limitation in the existing literature. The most significant publication to date on ECRs is the statistical research of the National Documentation Centre (Labrianidis et al., 2022), which contains only quantitative data on PhD holders in Greece, without further qualitative research. Moreover, two other research papers describe the academic and working situation of Greek ECRs (Anastasopoulou, 2016; Tzanakou, 2021), but only for scientific fields of STEM (Science, Technology, Engineering and Mathematics) at Greek universities. Therefore, apart from the limited quantitative research conducted by the National Documentation Centre, there is no other research available on the academic and working

conditions in the field of Social Sciences in Greece. Thus, this study aims to answer research questions regarding the conditions of academic work, sources of funding, and employment conditions for scientific researchers in the early stages of their careers, using a sample of 40 Social Sciences departments. The aim of this discussion is to draw attention to the challenges and barriers faced by early career researchers (ECRs) in the initial stages of their academic careers.

## 2. Methodology

This paper describes the academic and working context in which early career researchers (ECRs) in Greece's Social Sciences field build their research and academic careers. The study uses a sample of 40 departments as a case study. The analysis of the academic and working conditions of PhD and postdoctoral researchers, as well as the analysis of the working conditions of the holders of a doctoral title within the academic institution, are analyzed using the method of content analysis. The method of content analysis facilitates the systematic examination of documents by identifying patterns of information, themes or 'keywords' that relate to the subject of the research. The most interesting information related to the subject of the research is then classified into relevant categories of analysis (Bengtsson, 2016; Haggarty, 1996; Hsieh & Shannon, 2005). The current study applies the method of content analysis to examine the regulations of doctoral and postdoctoral research, as well as *the program of acquiring academic teaching experience for ECRs holding a doctorate title*. To achieve this, topics of interest are coded and classified based on academic duties, research assessment, and the working status of ECRs. The following section will provide a detailed explanation of the methodology used.

At first, for the content analysis of the PhD regulations, data were drawn from a sample of 40 departments within the Social Sciences field in 13 Greek Higher Education Institutions (HEIs)(Table 1.). The records examined for the academic and working conditions of PhD candidates are the regulations of PhD studies of 40 departments. Those regulations, in some parts, follow the general regulations of Law 4957/2022 (Government Gazette A 141/21.7.2022) and Law 4485/2017 (Government Gazette A 114/4.8.2017). Thus in the regulations there are similarities according to:

- The duration of PhD research.
- Institutional benefits for PhD candidates (e.g. food/housing/transportation, use of facilities, etc.).

- The working status of PhD candidates.

However, despite the fact that there are similarities between the regulations, a number of differences were noted. Apart from the demanding ultimate goal of the PhD researchers, which is no other than the accomplishment of the doctoral dissertation, it appears that individual departments follow different strategies regarding the compulsory tasks that the PhD candidates have to accomplish. In particular, in some departments PhD candidates are required to do auxiliary work or/and attend courses/seminars. Whereas in other departments responsibilities beyond the preparation of the dissertation are left to the discretion of the PhD candidate or supervisor and defined when necessary. Apart from those differences observed on individual departments, differences are observed also among scientific disciplines. Those differences among scientific disciplines have to do with the strategies on research publication. Thus, because of those differences, in the analysis of the regulations of PhD research, the following thematic categories emerge:

- The obligations of PhD candidates to compulsory parallel scientific publication
- The requirement to fulfill other academic and research duties, such as teaching courses, assisting in examinations and participating in research laboratories or research projects.
- The requirement to attend courses or seminars related to the subject and methodology of their PhD thesis.

In relation to the first axe, which concerns the obligations of PhD candidates, it is important to note that due to the varying publication strategies across scientific disciplines, a classification of 40 departments into 6 distinct scientific disciplines was conducted ( Table 1). The selection and categorization of departments by scientific discipline was based on the combination of organizational structure of those departments (curriculum of the areas of knowledge of a department provided by the official websites of those departments) and the categorization of scientific fields as they appear in the international Frascati list. The Frascati list is essentially an input report from the OECD (2015), which provides guidelines for the categorization and analysis of data on the research and academic activities that take place in each individual field of science.

**Table 1.** Classification of the Social Sciences departments under examination by scientific discipline

Disciplines and Departments					
Political Science	Sociology & Social Anthropology	Psychology	Economics	Communication	Social Policy
<ul style="list-style-type: none"> <li>Department of Political Science and Public Administration (National and Kapodistrian University of Athens)</li> <li>Department of Political Science (Aristotle University of Thessaloniki)</li> <li>Department of Political Science (University of Crete)</li> <li>Department of Political Science (Democritus University of Thrace)</li> <li>Department of Political Science and International Relations (University of Peloponnese)</li> <li>Department of International and European Studies (University of Macedonia)</li> <li>Department of Public Administration (Panteion University)</li> <li>Department of Political Science and History (Panteion University)</li> <li>Department of International, European and Area Studies (Panteion University)</li> </ul>	<ul style="list-style-type: none"> <li>Department of Social Anthropology and History (University of the Aegean)</li> <li>Department of History, Archaeology and Social Anthropology (University of Thessaly)</li> <li>Department of Social Anthropology (Panteion University)</li> <li>Department of Sociology (National and Kapodistrian University of Athens)</li> <li>Department of Sociology (University of Crete)</li> <li>Department of Sociology (University of the Aegean)</li> <li>Department of Sociology (Panteion University)</li> </ul>	<ul style="list-style-type: none"> <li>Department of Psychology (University of Crete)</li> <li>Department of Psychology (University of Ioannina)</li> <li>Department of Early Years Learning and Care (University of Ioannina)</li> <li>Department of Early Childhood Care and Education (University of West Attica)</li> <li>Department of Psychology (University of West Macedonia)</li> <li>Department of Psychology (Panteion University)</li> </ul>	<ul style="list-style-type: none"> <li>Department of Economics (National and Kapodistrian University of Athens)</li> <li>Department of Economics (Aristotle University of Thessaloniki)</li> <li>Department of Economics (University of Crete)</li> <li>Department of Economics (Democritus University of Thrace)</li> <li>Department of Economic and Regional Development (Panteion University)</li> </ul>	<ul style="list-style-type: none"> <li>Department of Communication and Media Studies (National and Kapodistrian University of Athens)</li> <li>Department of Digital Arts and Cinema (National and Kapodistrian University of Athens)</li> <li>Department of Journalism &amp; Mass Communications (Aristotle University of Thessaloniki)</li> <li>Department of Cultural Technology and Communication (University of the Aegean)</li> <li>Department of Communication and Digital Media (University of West Macedonia)</li> <li>Department of Communication, Media and Culture (Panteion University)</li> </ul>	<ul style="list-style-type: none"> <li>Department of Social Work (Democritus University of Thrace)</li> <li>Department of Social Policy (Democritus University of Thrace)</li> <li>Department of Educational Sciences and Social Work (University of Patras)</li> <li>Department of Social &amp; Educational Policy (University of Peloponnese)</li> <li>Department of Educational &amp; Social Policy (University of Macedonia)</li> <li>Department of Social Work (University of West Attica)</li> <li>Department of Social Policy (Panteion University)</li> </ul>

For the process of analyzing the academic career continuity of researchers who obtain a doctoral degree, the research followed the same methodological procedure of content analysis as used for the analysis of PhD regulations. With regards to postdoctoral research, the documents examined are the decisions of the 40 Social Sciences departments of Greek universities which are in agreement with Law 4957/2022, Article 174, par. 1, which follows the general regulation of Law 4485/2017 (Government Gazette A 114/4.8.2017) "Organization and operation of higher education, regulations for research and other provisions". In analyzing postdoctoral regulations, the following research objectives were examined:

- The requirements for the selection of candidates for postdoctoral research.
- The requirements in terms of deliverables from post-doctoral researchers (scientific publications, conference proceedings, etc.).
- Their institutional benefits
- Their working status

In parallel with post-doctoral research, and in the context of the continuation of the academic career of PhD holders, the paper analyzes the relevant legislation of Greek universities that follow the provisions of Law 4957/2022 (article 173) regarding the possibility of employing and selecting ECRs to acquire academic teaching experience.

More particularly, the research examines the program *Acquisition of academic teaching experience for new scientists*. The program is of significant importance to PhD holders, as it represents the primary avenue for ECRs to secure a teaching position in a HEI. This program is part of the country's strategic development plan NSRF 2014-2020, which is co-funded by the European Union and national government resources. Due to the fact that the Social Sciences departments under the current study follow the general regulations of the HEIs (in particular 13 HEIs) to which they belong, the current study analyzes the calls for applications published by these HEIs in the years 2022-2023. More specifically, the following data are analyzed:

- the evaluation criteria for the selection of candidates
- the working status for the selected candidates

### 3. Results

#### 3.1 Duties and responsibilities of PhD candidates

The first part of the research provides a detailed description of the characteristics and differences among regulations of departments at doctoral level regarding academic duties, such as cognitive training programs, obligatory auxiliary tasks, and parallel research production (such as writing a doctoral thesis with simultaneous writing of scientific publications). Concerning parallel scientific publication, based on the results of the analysis of the regulations of 40 departments, it appears that some of the departments have more intensive curricula. More specifically, 39% of the departments (16 departments), in addition to the dissertation writing, parallel scientific publication is an obligation, especially in scientific journals as an obligation for PhD candidates. Most of those departments (table 2) are categorized in specific scientific fields (Economics, Psychology, Social Policy). More specifically, in economics, four (4) out of five (5) departments, in psychology, five (5) out of six (6) departments and in Social Policy five (5) out of seven (7) departments require publications in scientific journals. On the contrary, in the fields of Communication and Political Science, out of fifteen (15) departments, only two departments mention the obligation of parallel scientific publication in their regulations. In particular, in the field of Communication, the obligation to publish is found in one (1) out of six (6) departments, while in the field of Political Science, it is found in one (1) out of nine (9) departments. Lastly, all the departments classified as Sociology and Social Anthropology departments, state in their

PhD regulations that publication in peer-reviewed journals or the presentation of papers relevant to the topic of the doctoral thesis at peer-reviewed conferences is an option rather than an obligation, and its' necessity is mainly determined by the supervisor or the department assembly. Thus, it seems by the results that there is a pattern according to the strategies of the process of scientific publication in each scientific discipline. However, it is important to note that departments that do not impose additional obligations on a PhD researcher still expect high-quality research work. Therefore, it is crucial to take the research work seriously regardless of any additional publishing obligations. Thus, whereas in some departments the final deliverable of the doctoral research may be a series of scientific articles, in other departments, where there is no obligation to publish a scientific paper, the doctoral thesis is of greater scope.

**Table 2.** *Departments in which doctoral candidates are required to have parallel scientific publication*

Scientific Discipline	Departments	Parallel publication obligation
<b>Economics</b>	<ol style="list-style-type: none"> <li>1. Department of Economics (National and Kapodistrian University of Athens)</li> <li>2. Department of Economics (Aristotle University of Thessaloniki)</li> <li>3. Department of Economics (Democritus University of Thrace)</li> <li>4. Department of Economic and Regional Development (Panteion University)</li> </ol>	<ol style="list-style-type: none"> <li>1. At least two (2) publications in either peer-reviewed journals or peer-reviewed conference proceedings.</li> <li>2. Participation in at least one (1) international peer-reviewed conference (publication of conference proceedings), at least two (2) publications on a topic related to his/her thesis in an internationally recognised academic journal (with impact index or indexed in ABS or Q1, Q2 in Scopus).</li> <li>3. Two (2) publications in peer-reviewed international scientific journals and presentations at two (2) scientific conferences.</li> <li>4. At least one (1) article in an international scientific journal</li> </ol>
<b>Psychology</b>	<ol style="list-style-type: none"> <li>1. Department of Psychology (University of Crete)</li> <li>2. Department of Psychology (University of Ioannina)</li> <li>3. Department of Early Childhood Care and Education (University of West Attica)</li> <li>4. Department of Psychology (University of West Macedonia)</li> <li>5. Department of Psychology (Panteion University)</li> </ol>	<ol style="list-style-type: none"> <li>1. At least one (1) publication that must be listed in a scientific database (PsycINFO, ISI-Web of Science, Scopus).</li> <li>2. At least one (1) publication if the thesis is a single text, two (2) publications if the thesis is a series of scientific papers, participation in at least 2 conferences</li> <li>3. At least two publications; one (1) in a Greek and one (1) in an international peer-reviewed scientific journal.</li> <li>4. At least one (1) publication if the thesis is a single text, two (2) publications if it is a series of scientific papers, participation in at least 2 conferences.</li> <li>5. At least one (1) publication in a scientific journal, in collaboration with the supervisor</li> </ol>
<b>Social Policy</b>	<ol style="list-style-type: none"> <li>1. Department of Social Work (Democritus University of Thrace)</li> <li>2. Department of Educational Sciences and Social Work (University of Patras)</li> <li>3. Department of Social &amp; Educational Policy (University of Peloponnese)</li> <li>4. Department of Educational &amp; Social Policy (University of Macedonia)</li> <li>5. Department of Social Work (University of West Attica)</li> </ol>	<ol style="list-style-type: none"> <li>1. At least one (1) publication in a peer-reviewed journal on a topic related to his/her thesis; alternatively, he/she must have three (3) publications in a peer-reviewed journal.</li> <li>2. Publication of one (1) article in an international Scientific journal</li> <li>3. At least two (2) publications in international scientific journals, one of which must have been published in a journal listed in the WEB OF SCIENCE, SCOPUS and EBSCO databases or in SSRN, Bepress or a law journal.</li> <li>4. Mandatory publication of 2 articles or 1 article and a conference proceedings</li> <li>5. Publication in at least two (2) peer-reviewed scientific journals (Greek or international).</li> </ol>
<b>Communication</b>	<ol style="list-style-type: none"> <li>1. Department of Communication and Digital Media (University of West Macedonia)</li> </ol>	<ol style="list-style-type: none"> <li>1. At least two (2) publications on a topic related to the thesis in international journals belonging to one of the categories Q1, Q2 or Q3 of Sci-mago (SCOPUS) and at least one (1) peer-reviewed international conference with published proceedings.</li> </ol>
<b>Political Science</b>	<ol style="list-style-type: none"> <li>1. Department of Political Science and International Relations( University of Peloponnese)</li> </ol>	<ol style="list-style-type: none"> <li>1. At least one (1) publication in a peer-reviewed journal or two (2) chapters in a collective volume and a presentation at at least one conference.</li> </ol>

Apart from the parallel scientific publications' requirement, in most of the regulations of the departments examined, it is stated that the PhD candidates may need to attend courses related to their research, if this is deemed necessary. However, in very few cases are doctoral candidates actually required to attend such courses. In particular, only nine (9) departments have clear requirements for attending courses or seminars on research methodology and knowledge expertise (table 3). According to the existing international literature, it is a common practice in many higher education institutions in Europe to include in the curriculum courses related to research methodology and courses in the research area of the subject of the PhD research. Thus, a distinction is being made

between the terms “PhD student” and “PhD candidate” (Jegade, 2021, p. 6). More specifically, at the beginning of his/her PhD studies a doctoral candidate is a PhD student who attends some courses considered necessary to deepen the ability and knowledge to work effectively on the research objectives and the methodology used to carry out scientific research and follows the period in which the doctoral candidate prepares his/her PhD thesis (PhD candidate) (Abdi et al., 2021; Brew et al., 2017). However, based on the results of the study (table 3), the distinction between the terms PhD student and PhD candidate, as commonly encountered in European universities, was not observed in the majority of departments under examination. Exceptions to this are the Department of Economics of the Aristotle University of Thessaloniki and the Department of Education and Social Work of the University of Patras, where the PhD regulations of these departments stress the separation of these two periods of time, one being the period of education and the other the period of preparation of the doctoral dissertation. More precisely, for the faculty of Economics of the Aristotle University of Thessaloniki, the first period consists of a minimum of two academic semesters, where the PhD candidate has to *pass exams covering the whole range of knowledge of his or her dissertation*. The second period, which lasts at least four academic semesters, concerns *the preparation of the doctoral thesis based on the candidate's research proposal*. Similarly, at the University of Patras, during the first two years of study, the PhD candidate must attend at least *a postgraduate course or seminar in research methodology*.

Apart from the case of the two departments mentioned above, it should be noted that 7 of the 40 departments examined, even though they do not provide two different periods of study and dissertation preparation, do require the attendance of cognitive and research training courses during the PhD program. In particular the department of Economics at the University of Athens (PhD studies regulation, article 7), where each doctoral student *must have attended and successfully completed a series of courses [...] which, in addition to providing the necessary tools for the preparation of the dissertation, will equip the PhD student with the necessary range of knowledge and methods which are the hallmarks of a doctoral degree in Economics*. Similarly, in the department of Psychology at the University of Western Macedonia, PhD candidates are required to attend training seminars during the preparation of their doctoral thesis, which are assessed with ECTS credits. These seminars focus more on basic practices related to research methodology, analysis and synthesis of data and information, etc. Moreover, the doctoral candidate's obligations include the participation in a demanding departmental program



("School of Doctoral Candidates"), which provides the necessary ECTS credits for the fulfillment of the PhD program (PhD regulation of the department, article 7). Similarly, the department of Economic and Regional Development of the Panteion University organizes a program of compulsory seminar courses on research methodology and quantitative methods, as well as typological issues related to the writing of the thesis (PhD studies regulations of the department, p. 21).

**Table 3.** *Departments in which doctoral candidates are required to attend courses/seminars*

Scientific Discipline	Department	Compulsory Attendance of courses/seminars
<b>Economics</b>	<ol style="list-style-type: none"> <li>1. Department of Economics (National and Kapodistrian University of Athens)</li> <li>2. Department of Economics (Aristotle University of Thessaloniki)</li> <li>3. Department of Economic and Regional Development ( Panteion University )</li> </ol>	<ol style="list-style-type: none"> <li>1. Compulsory attendance of courses that are relevant to the department's broader cognitive interests.</li> <li>2. During the initial period of study, students are required to attend and pass a series of courses through examination.</li> <li>3. Compulsory attendance of seminar courses</li> </ol>
<b>Psychology</b>	<ol style="list-style-type: none"> <li>1. Department of Psychology (University of Crete)</li> <li>2. Department of Psychology (University of West Macedonia)</li> <li>3. Department of Psychology ( Panteion University )</li> </ol>	<ol style="list-style-type: none"> <li>1. Attendance of first and second cycle courses is mandatory for those who lack knowledge of the department's subjects.</li> <li>2. Compulsory attendance of seminar courses</li> <li>3. Attendance of first and second cycle courses is mandatory for those who lack knowledge of the department's subjects.</li> </ol>
<b>Social Policy</b>	<ol style="list-style-type: none"> <li>1. Department of Educational Sciences and Social Work (University of Patras)</li> <li>2. Department of Social &amp; Educational Policy ( University of Peloponnese )</li> <li>3. Department of Social Work ( Democritus University of Thrace )</li> </ol>	<ol style="list-style-type: none"> <li>1. 2 years of study, compulsory attendance of courses</li> <li>2. Attendance of research methodology seminars or other relevant seminars related to the thesis title is compulsory.</li> <li>3. Doctoral candidates are required to attend and participate in at least one seminar per year.</li> </ol>

Alongside the obligation of scientific publications and the attendance of training courses, according to Article 88 of Law 4485/2017, PhD candidates may be required to carry out auxiliary educational work (e.g. didactic and laboratory work) if assigned by their department or supervising professor. In addition, they have the opportunity to support the educational process by, for example, assisting with the supervision of examinations for undergraduate and postgraduate courses. More specifically, it can be observed that, in 17 of 40 under examination departments, PhD candidates are obligated to have a systematic and proven presence in the area of the university and/or participate in research activity i.e. participating in laboratories and research projects and/or participating in auxiliary educational work during the period of their PhD research (table 4). Nonetheless, the situation is not the same in all departments with regards to auxiliary duties. There are cases of departments, (with the most notable example being the case of the department of Social Anthropology, University of the Aegean) where teaching, as

well as tasks such as the assignment of correcting written examinations of undergraduate or postgraduate students, are explicitly excluded.

**Table 4.** *Departments in which PhD candidates required to carry out auxiliary educational work*

Scientific Discipline	Department	Auxiliary Educational Work
<b>Economics</b>	<ol style="list-style-type: none"> <li>1. Department of Economics (Aristotle University of Thessaloniki)</li> <li>2. Department of Economics (University of Crete)</li> <li>3. Department of Economic and Regional Development (Panteion University)</li> </ol>	<ol style="list-style-type: none"> <li>1. Compulsory attendance 3 days a week at the university and compulsory supervision of exams</li> <li>2. Undergraduate teaching and compulsory examination supervision</li> <li>3. Teaching undergraduate and postgraduate courses and systematic presence at the University</li> </ol>
<b>Psychology</b>	<ol style="list-style-type: none"> <li>1. Department of Psychology (University of Crete)</li> <li>2. Department of Early Years Learning and Care (University of Ioannina)</li> <li>3. Department of Psychology (University of West Macedonia)</li> <li>4. Department of Psychology (Panteion University)</li> </ol>	<ol style="list-style-type: none"> <li>1. Teaching courses, compulsory university attendance and compulsory examination supervision</li> <li>2. Participation in research activities and in teaching at the undergraduate and postgraduate level.</li> <li>3. Compulsory auxiliary work (teaching, research, supervision)</li> <li>4. Compulsory auxiliary work (teaching, research, supervision)</li> </ol>
<b>Political Science</b>	<ol style="list-style-type: none"> <li>1. Department of Political Science (Democritus University of Thrace)</li> <li>2. Department of Political Science and International Relations (University of Peloponnese)</li> <li>3. Department of International and European Studies (University of Macedonia)</li> <li>4. Department of International, European and Area Studies (Panteion University)</li> </ol>	<ol style="list-style-type: none"> <li>1. Compulsory auxiliary work (examination supervision)</li> <li>2. Compulsory auxiliary work (examination supervision)</li> <li>3. Compulsory auxiliary work (teaching, examination supervision), and compulsory university attendance for 7 hours per week</li> <li>4. Compulsory auxiliary work (teaching, examination supervision)</li> </ol>
<b>Communication</b>	<ol style="list-style-type: none"> <li>1. Department of Communication and Digital Media (University of West Macedonia)</li> </ol>	<ol style="list-style-type: none"> <li>1. Compulsory auxiliary work (teaching, workshops, supervision) and compulsory attendance at the University</li> </ol>
<b>Social Policy</b>	<ol style="list-style-type: none"> <li>1. Department of Social Work (Democritus University of Thrace)</li> <li>2. Department of Educational Sciences and Social Work (University of Patras)</li> <li>3. Department of Social &amp; Educational Policy (University of Peloponnese)</li> <li>4. Department of Educational &amp; Social Policy (University of Macedonia)</li> <li>5. Department of Social Policy (Panteion University)</li> </ol>	<ol style="list-style-type: none"> <li>1. Compulsory auxiliary work (teaching, examination supervision)</li> <li>2. Participation in research activities (participation in workshops, research projects)</li> <li>3. Compulsory auxiliary work (teaching, examination supervision) and participation in research activities</li> <li>4. Compulsory auxiliary work (examination supervision)</li> <li>5. Compulsory auxiliary work (examination supervision)</li> </ol>

### 3.2 Working Conditions of PhD candidates

Despite the disparities among departments in terms of attendance courses and compulsory auxiliary duties and disparities on parallel research production among scientific disciplines, it seems that there is a common ground for all the departments examined in terms of their working conditions, because all of them follow the General law regulations 4452/2017 and 4957/2022. The 40 departments under review are subject to laws 4452/2017 and 4957/2022, which are common to all schools and universities in Greece. According to Article 19 par. 4 of Law No. 4452/2017, paid research for a PhD candidate means research that has received a grant or is linked to a research project funded by a public or private institution or by an institution of the European Union. Furthermore, according to an analysis of the doctoral regulations of 40 departments, it appears that, apart from some benefits, to which PhD are entitled, mentioned in Law No. 4957/2022 Article 93 par. 3 (e.g. food card, student pass, medical coverage by the university, etc.), the doctoral research is basically unpaid, unless the PhD candidates are employed as academic scholars, according to the decision of the departmental assembly. In conclusion, PhD candidates of the Social Sciences departments, as well as in departments of all scientific fields throughout the Greek territory, carry out doctoral research without being compensated or without any financial security in general. The occasions when their contribution to research production and participation in academic responsibilities is

funded are when they work as academic scholars or when they have received a scholarship from a public or private institution (e.g. IKY, ELIDEK, etc.).

### **3.3 The future prospects in academia for a Doctorate in Social Sciences**

ECRs who complete their PhD can be justifiably proud of the fact that, despite many difficulties, they have risen even higher in the scientific and academic community. A doctoral holder's next steps within academia can be seen as either continuing and developing doctoral research, or academic teaching, or a combination of both. With regards to postdoctoral research, according to Law 4957/2022 (article 174, paragraph 1), the requirements and obligations of postdoctoral researchers are determined by the internal regulations of the department to which they are admitted. However, out of the 40 departments analyzed, 70% (28 departments) do not have postdoctoral regulations derived from the departmental assembly/senate, but follow the general regulations of the institutions to which they belong. The fact that there is many departments that follow the general regulations of their institutions raises a major concern. This concern is that it is not possible to determine whether the general rules are being followed or whether other criteria are being used by a department to select a postdoctoral researcher. Subsequently, on a similar basis, questions are raised about the research activity of a postdoctoral researcher of these departments until he or she has completed his or her research. Thus, there is no clear picture of the research and other academic responsibilities of a postdoctoral researcher, and therefore it is not clear how the acquisition of postdoc research expertise is defined.

Despite the fact that a large number of departments follow the general rules of the institutions to which they belong, there seems to be a common pattern in all the departments examined. All of the departments, including the 12 departments which have their own regulations and the other 28 departments that follow the regulations of their universities, all of them follow the same general regulation (4957/2022) that defines the working conditions of a postdoctoral researcher in Greece. According to the general regulation, postdoctoral research is carried out unpaid and the institutions to which the researchers are assigned have no obligation to pay them. Postdoctoral researchers have the option to apply for funding (e.g. for participation in conferences, research equipment, etc.) from the regular budget of the department or faculty, as decided by the Assembly or the Council of Deans. At the same time, postdoctoral researchers can either apply for a scholarship or, in collaboration with their supervisor, submit proposals for research

projects on topics related to their field of research. Thus, as in the case of PhD research, research at a postdoctoral level is carried out without an employment contract between the university and the researcher. The main employment status of the postdoctoral researcher is to be considered as an Academic Scholar or having received funding in the form of a scholarship from a governmental, intergovernmental or private institution.

Apart from post-doctoral research, teaching appears to be the main area of employment for doctoral and post-doctoral researchers in Greek higher education institutions, according to statistical research conducted by the National Documentation Centre (Labrianidis et al., 2022, p. 63). Specifically, from the percentage (32.6%) of employed PhD holders that work in Higher Education Institutions, the majority (27.6%) of them are employed as teaching staff. According to this, the research analyzes the program *Acquisition of academic teaching experience for new scientists*, regarding the recruitment process of ECRs as academic staff in Greek universities. The program is of significant importance to PhD holders, as it represents the primary avenue for ECRs to secure a teaching position and remain active within the university environment following the completion of their PhD.

In light of the above, the pertinent legislation pertaining to the academic careers of doctoral-holding researchers is examined in the present paper, in the context of the continued implementation of Law 4957/2022 and how this law is applied to universities, with regards to the criteria for employment and candidate selection for academic teaching experience. In detail, the evaluation criteria of assessment for this program are based not only on the course design, but also on the quantity and the quality of research production. In terms of research evaluation, for most regulations under examination (10 of 13 HEIs)<sup>2</sup> the research outputs of a candidate are evaluated according to their “scientific weight”. Their “scientific weight” depends primarily on whether the article was published in a scientific journal and whether the journal is rated high or low in the relevant journal count list (i.e. Scopus). This means that the program places more emphasis on publishing strategy, i.e. publishing scientific articles (which will ultimately be evaluated higher), than on the published work itself. This observation raises the question of whether potential applicants of the program, who are ECRs with a doctoral degree and originate from departments and hence research areas that do not follow the same pattern according

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<sup>2</sup> Three universities, namely the University of Macedonia, Panteion University and the University of Ioannina, have been identified as exceptions to the criteria. These universities do not include the criterion of ‘scientific weight’ in their research assessment.

to the strategy of publication in high-impact journals (see Table 1), should be evaluated according to the general rules and thereby according to the publication patterns of other scientific fields.

Regarding the working conditions, chosen candidates for the program *Acquisition of academic teaching experience for new scientists* are required to work under the status of temporary lecturer. The recruitment of appointed lecturers requires an academic procedure similar to the procedure for recruiting academic scholars. Similar to academic scholars, temporary lecturers are recruited on a contractual basis for a maximum of three academic years. The contract of this program is funded by the university (ELKE) and the NSRF program for a period of up to one year. At the same time, selected candidates do not have a set number of courses to teach, which means they do not receive a fixed salary. The number of courses and the fee size are determined based on the requirements and needs of each department. The maximum number of courses that can be selected are three. Otherwise, Program selectees may be required to teach fewer courses at a reduced rate of pay. In summary, the selected Program participants are expected to carry out academic work under precarious working conditions, with their total salary dependent on the number of courses they select. Additionally, the contract they sign is of short duration.

#### **4. Conclusions and discussion**

In conclusion, through the method of content analysis, the present paper detected and analyzed interesting aspects and loopholes of the academic and working condition of ECRs in Greece. As regards to PhD researchers, it has been detected that the majority of the regulations of the examined departments do not follow the same mentality as most university institutions in Europe (as noted in the results), meaning the separation of two periods of doctoral studies, the first being the period in which the doctoral candidate is considered a student (PhD student) and the second being the period in which the doctoral candidate is considered a researcher (PhD candidate). This probably means that in most departments, PhD candidates do not complete their doctoral studies equipped with the necessary research and methodological tools needed to achieve academic excellence. In addition, even in those departments where cognitive and methodological training is considered to be necessary, there are differences in the way these training obligations are fulfilled. In fact, only two of these nine departments (the Department of Economics of the Aristotle University of Thessaloniki and the department of Education and Social Work of

the University of Patras) have a specific structure or timetable that emphasizes the separation of two periods, the first being the period of training and the second being the period of the doctoral thesis. For the other seven departments, even though specific instructions and details are provided for the cognitive and methodological training courses, no specific timetable is set for the completion of these training activities.

It was also found that in 17 of the 40 departments observed, PhD candidates are required to undertake parallel auxiliary duties. Many of these duties are carried out either unpaid or under the status of academic scholarship. Namely, the decision to pay for additional academic and scientific work is left to the discretion of the Supervisor or the department assembly and is dependent on the resources available to the department or university. Regardless of whether it concerns auxiliary work or research itself, doctoral candidates may not have a fixed employment contract for all years of their PhD research. Not only the departments under examination but all the universities in Greece which follow the general regulations (Law 4957/2022 which follows the Law 4485/2017) for doctoral studies are affected by this. Thus, PhD candidates are essentially asked to do unpaid work with the main hope of being granted a scholarship. However, according to the quantitative study by National Documentation Centre (Labrianidis et al., 2022) only a limited number of PhD candidates receive such a grant, while a substantial number of PhD candidates pursue their research on the basis of personal savings or financial support from family and social circles.

Regarding ECRs who have obtained a doctoral title and decide to pursue an academic career as academic teaching staff, the continuity of their career largely depends on the ‘weight’ of their scientific publications. In particular, it appears by the analysis of the regulations of the program *Acquisition of academic teaching experience for new scientists*, that the selection of candidates largely depends on the evaluation of research outputs<sup>3</sup>. Essential criteria of the research assessment of the candidates (for the 10 out of 13 HEIs, see results) is to publish their research in high-impact scientific journals, clarifying in the regulations that these publications have more scientific weight than other types of scientific publication. However the criteria of ‘scientific weight’ of a publication may not fully reflect the depth and potential impact of the research work of candidates (Adams, 2022; Goyanes et al., 2022; Segarra, 2016). Moreover, conference proceedings,

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<sup>3</sup> Exception is the university of Ioannina. University of Ioannina places a greater emphasis on the planning of teaching courses than on research assessment.

monographs, and scientific volumes which are also important types of research publication (Engels et al., 2018; Glaser & Oltersdorf, 2019; Hicks, 2005; Kulczycki et al., 2018), are not considered as highly valued publications in scientific journals. In addition this method of assessing research quality in this program raises the question of whether it is in line with the research culture and therefore the publication patterns used in the Social Sciences departments (Becher & Trowler, 2001; Canti et al., 2021; Kulczycki et al., 2020; Reed & Fazey, 2021; Sivertsen, 2019; Trowler, 2014). This argument can be detected even in the publishing methods adopted since the stage of PhD research (Horta & Santos, 2015; Wilkins et al., 2021). The argument upon research culture and publication patterns adopted since the stage of PhD research is supported by the results of the current analysis. The analysis of the PhD regulations of the 40 Social Sciences departments (see Table 2) shows that publication in a scientific journal as a research strategy is more inherent to some disciplines than other disciplines. A preliminary examination of the data collected for the existing research indicates that, in the scientific areas of Social Policy, Economics and Psychology, there is a greater tendency to adopt a publication culture oriented towards the use of the scientific journal as the main publication medium in comparison to the fields of communication, sociology & social anthropology and political science. However there has to be further research analysis regarding publication patterns across Social Sciences disciplines in Greece and the evaluation criteria followed in programs such as *Acquisition of academic teaching experience for new scientists*.

With regards to the conditions for postdoctoral research, it can be observed that there are significant institutional loopholes in most of the departments. These loopholes relate to the lack of institutional and structural support. This argument is since the majority of the departments studied (70%) are subject to the general rules and regulations of their university. Thus, as mentioned in the results, there is no clear understanding of the criteria for selecting a postdoctoral candidate or the research and academic responsibilities of a postdoctoral researcher. Consequently, the acquisition of postdoc research expertise is also undefined. This limits the scope of the study of the two thematic axes defined in the methodological design of the research: *the requirements for the selection of candidates* and *the requirements in terms of deliverables from postdoctoral researchers*. Although data is lacking for many of the departments under examination, a common fact emerges with regard to the working conditions of the postdoctoral researchers. This is because all of them (either the 12 departments which have their own

regulations, or the other 28 departments which are follow the regulations of their universities) follow the same general regulation (4957/2022) regarding the working conditions of a postdoctoral researcher in Greece. According to the general regulation, it appears that postdoctoral research is carried out without fixed financial terms. Paid postdoctoral research is considered research that has received a Scholarship or is linked to a research project funded by a public or private body or by a European Union institution. However, even at the postdoctoral level, funding in the form of grants or research projects is limited.

In essence, research at the PhD and postdoctoral levels is conducted without a fixed employment contract between the university and the researcher. For the PhD or postdoctoral researcher, employment is defined as being counted as an academic scholar or having received funding from a state, intergovernmental, or private body. Lastly, as regards the working conditions of ECRs with doctoral title who serve as teaching staff, (according to the regulations of the program *Acquisition of academic teaching experience for new scientists*), are appointed without job security, uncertain if their contract with their affiliated institution will be renewed annually. Consequently, they do not have a permanent position in their home institution and must reapply for a teaching position annually when their contract expires. Based on the above results and conclusions, it appears that the weaknesses in the existing institutional framework for ECR research are detrimental to both ECRs and universities. There is a risk that research potential at HEIs in Greece will be underused unless the foundations and framework for research work are improved and stable opportunities and a secure working environment for ECRs are provided. The loss of key research staff for the analysis of scientific and social issues leads to the degradation of the research process and limits the development of research outputs, ultimately resulting in a lack of support for new research paradigms.

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