

Shifting Tides: transformations in Portugal's scientific labor modes of coordination

Gonçalo Leite-Velho¹, Mariana Gaio Alves²

¹CIPES, Oporto, Portugal. ²Instituto de Educação da Universidade de Lisboa, Lisboa, Portugal

Research Domains

Academic practice, work, careers and cultures (AP)

Abstract

This paper examines the changes in the coordination of scientific labor in Portugal, considering that scientific employment has been evolving globally in recent years.(OECD 2021). The investigation draws on a review of the country's scientific employment policies; and presents the analysis of two official national statistical data (from the National Science Foundation's and General Direction for Statistics in Education and Science) to examine the development of contract practices. Overall, the paper argues that Portugal's scientific employment has shifted from an informal grant-based system to a formal employment contract model due to strategic policy changes. This transition has led to a variety of employment arrangements becoming the norm, presenting new governance and organizational challenges. Within this context, the objectives of coordination appear to have shifted from solidarity to efficiency, which may lead to issues in knowledge production by constraining freedom of debate and professional autonomy within research development.

Full paper

Introduction

It is widely acknowledged that scientific employment has been changing in recent years (OECD 2021). This paper examines the changes in scientific labor coordination in Portugal. The first section reviews the country's scientific employment policies. The second part takes a quantitative approach to measure the development of contract practices and their organizational traits. A noticeable transition is identified, moving from a "guild apprenticeship scheme" to a "tertiary hierarchies' arrangement," presenting new governance and organizational challenges.

Changes in legal framework

In the 1990s, Portugal established a national scientific research policy with the creation of a Ministry for Science. The process started in 1987 with funding for scientific research and advanced degrees at the Master's and Ph.D. levels, followed by support from the first European community structural funds. The inclusion of postdocs as grants created further uncertainty as they were not explicit work contracts despite the scientific work developed and also perpetuated the postponing of permanent contracts (considered privileged opportunities reserved for later times). The establishment of a research career in 1999 (Decree-Law 124/99) facilitated the establishment of scientific researchers as a distinct professional category (Carvalho et al., 2022), being further supplemented by revised regulations for grant recipients (Decree-Law 124/99) and scientific research organizations (Decree-Law 125/99).

In 2007, the legal framework saw further changes with contractual agreements between the state and scientific organizations through government programs named "Ciência" and "Welcome". This policy aimed to fund 1000 individual work contracts for PhD holders until 2009, with a five years contract limit. It was later extended from 2012 to 2015.

In 2016, a new initiative aimed to increase scientific employment through government action. It sought to establish 3000 contracts but faced social and political resistance, leading to modifications in parliament in 2017 with a focus on converting grants into employment agreements. These laws established the current framework for scientific employment in Portugal.

Measuring shifts in labor coordination

Data was collected from two national official sources: the National Science Foundation's grant database and the General Direction for Statistics in Education and Science scientific research contracts database. Complementing these databases allowed for a comprehensive analysis, surpassing two separate analyses focused on grants' evolution and scientific research working contracts.

The grants (mainly PhD but also postdoc) increased steadily until reaching a peak in 2011 (Figure 1). After 2012, the number of grants decreased until reaching a plateau between 2016 and 2017. Since then, only PhD grants have been awarded as part of a new scientific employment policy, with no official data available thereafter.



The number of working contracts by starting year (Figure 2) illustrates the slow development until 2017, indicating challenges in implementing previous scientific employment policies by governmental initiatives. From 2018 onwards there was a substantial increase, with well over 1000 new contracts, peaking at 2633 in 2019.



The discrimination of professional categories hired (Figure 3) shows a significant increase in entry-level positions since 2018, indicating a predominance for early-stage roles. The lack of information on age and prior work experience hinders the interpretation of these positions in terms of career stage or bargaining power.



The distribution of contract types (figure 4) indicates that the predominance of indefinite public service contracts (non-tenure) lasted until 2012, albeit gradually eroding. They were later replaced by fixed-term and definite-term modalities, which became the new norm after 2017.



Finally, the analysis on the distribution contracts by type or organization (Figure 5) shows that though the state autonomous services (mainly universities) are the prevalent type of organization, there is a significant proportion of hiring by non-profit organizations, many of which assume the role of outsourced research centers linked to universities.



Conclusion

Portugal's scientific employment has shifted from an informal grant-based system to a formal employment contract model through strategic policy changes. This shift brings about imbalances due to the fragmentation and precarity of new contracts, along with many non-profit organizations serving as employers, creating fragile work coordination. The advancement of private institutions results in a major replacement from those designed and capable of subjecting economic actors (individually or collectively) to social obligations and public responsibilities, by others whose residual obligation is to observe that markets maximize profits. This might result in problems for knowledge production, with less freedom of debate and professional autonomy constraining research development. More attention is needed to understand collectively the effects of market forces in academic careers in Portugal as in other European countries (Teixeira, 2017), as well as the importance of the "professionalization" of Portuguese researchers (Sousa & Magalhães, 2014; Carvalho et al. 2022).

References

Carvalho, T., Diogo, S., & Vilhena, B. (2022). Invisible researchers in the knowledge society – the Uberisation of scientific work in Portugal. *European Journal of Higher Education*, 12(4), 393–414. <https://doi.org/10.1080/21568235.2022.2105371>

Kwiek, M. (2018). *Changing European Academics: A Comparative Study of Social Stratification, Work Patterns and Research Productivity* (1st ed.). Routledge. <https://doi.org/10.4324/9781351182041>

OECD. (2021). *Reducing the precarity of academic research careers*. OECD. Paris.
<https://doi.org/https://doi.org/10.1787/0f8bd468-en>

Sousa, S. B., & Magalhães, A. M. (2014). A research career? The Portuguese case. *European Journal of Higher Education*, 4(4), 317–333. <https://doi.org/10.1080/21568235.2014.915198>

Teichler, U. (2017). Teaching Versus Research: An Endangered Balance?. In: Machado-Taylor, M., Soares, V., Teichler, U. (eds) *Challenges and Options: The Academic Profession in Europe. The Changing Academy – The Changing Academic Profession in International Comparative Perspective*, vol 18. Springer, Cham. https://doi.org/10.1007/978-3-319-45844-1_2

Teixeira, P.N. (2017). A Bastion of Elitism or an Emerging Knowledge Proletariat? Some Reflections About Academic Careers with an Economic Slant. In: Machado-Taylor, M., Soares, V., Teichler, U. (eds) *Challenges and Options: The Academic Profession in Europe. The Changing Academy – The Changing Academic Profession in International Comparative Perspective*, vol 18. Springer, Cham. https://doi.org/10.1007/978-3-319-45844-1_3