

University and precariousness: origins and consequences of the labour model of the Spanish Public University in the 21st century

Universidad y precariedad. Orígenes y consecuencias del modelo laboral de las universidades públicas españolas del siglo XXI

José Manuel Torrado ^{1*} D Ricardo Duque-Calvache ¹ D

- ¹ Universidad de Granada, Spain
- * Corresponding author. E-mail: josetr@ugr.es

How to reference this article/ Cómo referenciar este artículo:

Torrado, J.M., & Duque-Calvache, R. (2023). University and precariousness. Origins and consequences of the labour model of the Spanish Public University in the 21st century. *Educación XXI*, 26(1), 47-69. https://doi.org/10.5944/educxx1.33510

Fecha de recepción: 15/03/2022 Fecha de aceptación: 06/06/2022 Publicado online: 01/02/2023

ABSTRACT

The implementation of the 2001 Organic Law on Universities and its subsequent reform in 2007 led to a transformation in the employment model for teaching staff at Spanish public universities. Amongst the main changes were the introduction of temporary positions for access to a teaching career (teaching assistants and assistant professors), the creation of the position of associate professor as a non-civil service route to stabilization, the establishment of new precarious positions such as interim substitute teachers and the

implementation of a national accreditation system to apply for positions. Two decades after its implementation, this paper analyses the consequences that the last major university reform has had on the labour model for teaching staff in Spanish public universities. To that end, a two-step analysis is presented. First, to put the recent changes into context, an overview is provided of the legislation that has structured the different employment models for teaching staff up to the present day. Second, using national university staff statistics, the process of implementing the current system in the 2004-20 period is analysed. The results show how precariousness, far from being a new phenomenon, has been a constant in Spanish universities. However, the latest reform has led to advances in the process of weakening the link between the teaching staff and the civil service and with more precarious contract positions, although these developments vary substantially between the different universities in the country.

Keywords: university, teaching staff, precariousness, university reform, labour model

RESUMEN

La implantación de la Ley Orgánica de Universidades de 2001 y su posterior reforma en 2007 supone una transformación en el modelo laboral del profesorado en la Universidad Pública española. Entre los principales cambios, se introducen figuras temporales para el acceso a la carrera docente (los ayudantes y ayudantes doctores), se crea la figura del contratado doctor como vía de estabilización no funcionarial, se posibilita la creación de nuevas figuras precarias como el profesorado sustituto interino y se crea un sistema de acreditación nacional para optar a plazas. A dos décadas de su implantación, el presente trabajo tiene por objetivo analizar las consecuencias que ha tenido la última gran reforma universitaria en el modelo laboral del profesorado en la Universidad Pública española. Para ello, se plantea un análisis en dos pasos. Primero, con el fin de poner en contexto los cambios recientes, se realiza una revisión de la legislación que ha articulado los distintos modelos laborales del profesorado hasta la actualidad. Segundo, empleando las Estadísticas del Personal Universitario (EPU), se analiza el proceso de implantación del actual sistema en el periodo 2004-2020. Los resultados muestran cómo la precariedad, lejos de ser un fenómeno nuevo, ha sido una constante en la universidad española. Sin embargo, la última reforma ha supuesto un avance de los procesos de desfuncionarización y de las figuras contractuales más precarias, aunque dicho proceso varía sustancialmente entre las distintas universidades del país.

Palabras clave: universidad, profesorado, precariedad, reforma universitaria, modelo laboral

INTRODUCTION

In the popular imagination, the figure of the university professor is usually associated with a high social position, significant status, autonomy and excellent working conditions. Although this image corresponds to the characteristics of teaching positions in later stages, once a professor's academic career has become established, the reality for a vast majority of university teachers in Spain is quite different. Low salaries, a heavy research burden, teaching and administrative duties, a high number of temporary jobs and delayed (or impossible) access to positions with stable contracts are merely some of the problems highlighted in the recent literature on this subject (García-Calavia, 2014; Noll, 2019). Indeed, twenty-first-century Spanish universities are characterized by a process of widespread job precariousness for teachers and researchers (Castillo & Moré, 2016).

This process is taking place in a complicated employment context in the country's universities. Firstly, the backdrop to this situation is the current institutional and employment model established with the Organic Law on Universities of 2001 (LOU, or Organic Law 6/2001), and consolidated six years later with a legal modification (LOMLOU, or Organic Law 4/2007). Both laws established new temporary entrylevel positions for teaching careers, most notably the teaching assistant (profesor ayudante, or PAY) and the assistant professor (profesor ayudante doctor, or PAD), the second of which must hold a PhD. The laws also deliberately attempted to weaken the link between the teaching staff and the civil service (in Spanish. desfuncionarización, a process etymologically related to the word funcionario, or civil servant, in a very broad sense) by establishing the position of associate professor (profesor contratado doctor, or PCD). At the same time, the law consolidated previously existing positions, like part-time instructors (profesor asociado, or PA) and paved the way for the autonomous communities in the country to design other positions, some of which, like the interim substitute professor (profesor sustituto interino, or PSI) were especially precarious.

Of course, this labour model could scarcely have developed in a normal context. In the wake of the financial crisis of 2008 and, particularly, the austerity policies enacted to alleviate its effects, the LOMLOU model was subject to strict restrictions, primarily a drastic decrease in public spending on higher education, a prohibition governing any increase in the structural staff of university teachers and a 0 per cent replacement rate (Royal Decree-Law 20/2011; Royal Decree-Law 14/2012). Recent works have observed that the result of this situation was the configuration of a highly precarious labour model for university teaching staff characterized by an excessive number of temporary jobs, a delay in ascending the academic ranks (García-Calavia, 2015; Hernández-Armenteros et al., 2017) and a division of the teaching labour market into two sub-markets (Castillo & Moré, 2016). While the

first – increasingly smaller – market enjoyed decent wages and working conditions, the second became defined by the precarious working and living conditions of the teachers.

This study presents an empirical analysis of the university labour market hypothesis, examining whether the latest university reform ushered in precariousness for the university teachers. The work is structured into three main sections. The first provides an overview of the successive labour models found in Spanish public universities to the present day. Its aim is twofold: to put the current employment model in a historical context; and to show how the question of precariousness, far from being a new phenomenon, has been a recurrent state of affairs. The paper then analyses the evolution of the labour model established after the last major reform, paying special attention to how the financial crisis of 2008 and public education spending policies affected that model. Thirdly, the article takes a close look at the differences between the labour models in the different Spanish public universities. In a regulatory and institutional context of university autonomy, it is necessary to fully understand the labour models chosen by each university to comprehend the impact of university self-governance on teaching staff models.

MFTHOD

Given its descriptive nature and its goals, this work combines two research methods used in the legal and social sciences. To reconstruct the history of university hiring models in Spain, the study undertakes a comparative review of the national legislation pertaining to universities to the present day. This review includes one law (83/1965), three organic laws (11/1983, 6/2001 and 4/2007) and one royal decree-law (14/2012). In each case, the information related to the hiring of teaching staff has been extracted from the articles, with regard to both contract positions and to procedures for selecting and promoting professors. It then provides a comparison of this information over time, drawing on works by the principal scholars in the field to evaluate the changes that have occurred and their importance.

To empirically verify the effect of these regulatory changes on the composition of university teaching staffs, the study employs the national university staff statistics published by the Ministry of Universities and the Ministry of Education and Vocational Training. Although this is an open-access, free-of-charge source, it remains largely untapped, making the analysis of its data particularly pertinent and complementary to the regulatory analysis. Given that this historical series begins in 2004, the empirical analysis is limited to the period ranging from 2004 to 2020. The variables used were used: contractual arrangement, field of study, age and university. Evidently, these variables have clear limitations that are inherent in the source, which does not include much information about the employees.

RESULTS

Is precariousness a new phenomenon? The evolution of labour models in Spanish public universities

Although the recent literature on the status of university teachers tends to highlight job precariousness as a characteristic of the labour models of twentyfirst-century universities (Castillo-Olivares et al., 2020; Marugán-Pintos & Cruces-Aguilera, 2013: Santos-Ortega et al., 2015), a review of successive twentiethcentury labour models in Spanish universities makes it clear that job insecurity dates back quite a while. Access to an academic career in modern Spanish universities has been characterized by a continuity of various transitory positions that were not well compensated and were linked to a series of temporary contracts that, in the best of cases, ended with the stability desired by their holders (García-Calavia & Montes-Suay, 2018). The degree of precariousness of these intermediate positions, their quantity, titles and the time that passed between entering the field and consolidating the position varied according to the institutional framework that structured the university employment model during different periods (Farrerons, 2005), as well as the historical and social contingencies surrounding each framework, such as the budget, economic cycles and the demand for higher studies (Corona-Sobrino, 2021).

Before the 1983 University Reform Act (LRU), Spanish universities were dominated by the so-called chair system (*sistema de cátedras*), whose origins date back to the creation of the nineteenth-century university system established by what was popularly known as the Pidal Plan of 1845 and the later Moyano Law of 1857 (Salaburu, 2007). This was a heavily centralized institutional system in which ten district seats were organized around the Madrid headquarters of the Universidad Central (Corona-Sobrino, 2021). In this institutional framework, the position of the full, or chair, professor (*cátedra*) was central not only in the operation of the institution but, especially, in the labour model. Well-paid, highly autonomous and with significant perks in terms of influence over hiring decisions, the chair professors sat at the summit, organizing the universities' human resources (Pérez-Díaz & Rodríguez, 2001). Despite variations in this labour model according to different historical moments, it was always similar: the chair professors selected the teams, basically at their discretion, creating a relationship of total dependency and hierarchy.

The last version of this model was defined by the 1965 LRU, which structured the departments and the teaching staff, and illustrates perfectly how the labour model based on chair professors functioned. Entering the teaching career began with the position of internship assistant (ayudante de clases prácticas, or ACP),

a temporary post that then allowed access to the position of adjunct professor (profesor adjunto, or PADJ). Both the entry-level position and the adjunct professor appointment required the endorsement of the chair professor, which resulted in some extremely endogamic internal selection processes for which, incidentally, a PhD was not required. After having held these posts, a teacher could be promoted to aggregate professor (profesor garegado, or PAG), a new position created in the 1965 law, which required both a PhD and a national competition. However, given the inertia of the chair system and the legal perks enjoyed by the chair professors, they continued to heavily influence the promotions. At the end of this process, the teacher could now fill a chair position, whenever a vacancy appeared. Thus, the chair system employment model also contained several transitory and temporary positions that were extremely subordinate to the discretionary power of their superiors. Moreover, job precariousness in the chair system was not limited to this established career path. At the same time, the universities also hired so-called supernumerary professors (profesores no numerarios), who were popularly known as 'penenes', because of their acronym, PNN. By the end of the 1970s and early 1980s, this position, which was paid very poorly and was guite precarious, made up the majority of professors, as Spanish universities tried to respond to the growing demand for higher education when the baby boom generation reached university age (Corona-Sobrino, 2021).

With the arrival of democracy, the centralist institutional model that dominated for more than a century came to an end, and with it, so did the labour modal structured around the chair professors. On the bases of university autonomy established by the Constitution of 1978, the 1983 University Reform Act laid the foundations for the employment model of the democratic period until the end of the twentieth century. This model was characterized by three primary aspects. Firstly, teaching positions proliferated within a twofold structure that included, on the one hand, the so-called civil servant university teaching staff - university chair professors (catedráticos de universidad, or CU), university associate professors (titulares de universidad, or TU), university institute chair professors (catedráticos de escuela universitaria, or CEU) and university institute associate professors (titulares de escuela universitaria, or TEU) – and, on the other hand temporary staff – teaching assistant (ayudantes de facultad, or AF), university institute assistant (ayudantes de escuela universitaria, or AEU) and professor of practice (profesor asociado, or PA), the last of which was a very precarious position that replaced the penenes in the previous model (Corona-Sobrino, 2021). Secondly, the ways to join the teaching staff and achieve stability proliferated, due to the diversification of positions but, above all, to the power of self-governance in specific universities, which were able to adjust their different promotion tracks within the legally established margins (García-Calavia & Montes-Suay, 2018). Thirdly, but no less important, the former role of the chair professor in structuring and selecting human resources became filled by the departments and fields, which were given jurisdiction over requesting positions and selecting candidates (Pérez-Díaz & Rodríguez, 2001). The result was a labour model that was certainly diverse, with important variations according to each university. The departments had a high degree of discretion in choosing candidates and there were a number of different promotion tracks, features that continue to the present day with some modifications.

However, despite the initial fragmentation, according to García-Calavia & Montes-Suay (2018), there were two main entry-level positions and promotion tracks for teachers. The first began as a university institute assistant (AEU), followed by promotion to teaching assistant (AF) when the candidate received their PhD, and then incorporation into the university teaching staff as a university associate professor (TU), with the possibility of promotion to chair professor. The second track, which was designed for teachers who did not obtain a doctorate, was characterized by renewal as an AEU, followed by a position as university institute associate professor (TEU). Although other informal tracks existed, these two defined the labour model established in 1983 with the LRU, a highly fragmented model with very precarious positions like the professor of practice (PA), but that offered a number of ways to join the civil servant teaching staff and, thereby, achieve stability.

The 1983 LRU model came to an end with the 2001 Organic Law on Universities (LOU) and its subsequent reform with the 2007 LOMLOU. The main objective of these two laws was to guarantee the quality and excellence of Spanish universities (and professors) within the framework of adapting to the European Higher Education Area (EHEA), and they set the regulatory bases for the current public university labour model. This model reformed the previous one in several key ways. Firstly, new teaching positions were created that replaced the older ones and separated the temporary, undefined teachers within the teaching staff. In this model, the formal promotion track begins with the teaching assistant (PAY) and assistant professor (PAD) (equivalent to the former AEU and AF, respectively), both for a specific period of time. After a maximum of five years in these positions – or eight if the teacher has filled both positions – the teacher with the necessary accreditation is promoted to associate professor (PCD), a new position without civil servant status. The process ends with access to the civil service teaching staff as a university associate professor (TU).

Secondly, the autonomous communities were given more control over labour regulation, being allowed to determine salaries and allowances, and to create new positions. These included the interim substitute professor (PSI), a precarious position that coexisted in many autonomous communities with the former part-time instructor positions, and the substitute associate professor, a provisional position created ad hoc in a crisis situation in order to retain working PADs at a time when new positions were lacking (Hernández-Armenteros et al., 2017). This feature

of the new labour model has meant in practice that there are a large number of significant differences between the autonomous communities and universities, both in the names of the positions (for instance, in Catalonia the assistant professor (PAD) is known as an assistant lecturer [profesor lector]), and in their individual labour models (as will be examined in the last section).

 Table 1

 Evolution and characteristics of the different labour models in Spanish public universities

| | Chair system model | 1983 LRU model | 2001 LOU model | 2007 LOMLOU model | |
|---------------------------------------|-----------------------|---|--|-------------------------------------|--|
| Period | 1845 – 1983 | 1983 - 2001 | 2001 - 2007 | 2007 - present | |
| Institution responsible for selection | Chair professors | Departments and areas | Departments and areas + ANECA + occupational mobility | Departments and areas + ANECA | |
| Formal promotion track | ACP→PADJ →PAG→CU | (PhDs) AEU→AF→TU→CU (Non-PhDs) AEU→TEU | PAY→PAI →TU- | | |
| Potentially precarious positions | PNN¹ | PA | PA, PSI | | |
| Institutional model | Centralist | University autonomy | University autonomy and alignment with the EHEA | | |

Source. Authors.

Thirdly, the current employment model is also characterized by an explicit attempt to limit the discretionary power that the 1983 LRU gave departments and areas to select staff. To accomplish this, a system of accreditation was implemented that determines access to the different positions (regulated since 2000 by the National Agency for Quality Assessment and Accreditation, or ANECA). This system has been criticized as clearly insufficient (Carreras, 2007); although departments are no longer permitted to select or promote teachers without accreditation, they have preserved their discretionary power with regard to requesting new positions and choosing the candidates for them. A department can wait until their interim

¹ Although 'PNN' can be used to refer to the different non-civil servant teaching positions that existed in the chair system model, such as the PADJ and ACP, this position became important after Law 83/1965 created the supernumerary professor position, which was more precarious than previous positions and outside the formal promotion track. In fact, the popular name 'penenes' is used almost exclusively to refer to the group of teachers that emerged after 1965.

professors are available before they send out a call for new positions and influence the selection process by designing the positions and requirements to match local candidates (Corona-Sobrino, 2021). Fourth, and finally, the current model makes an explicit commitment to excellence in a quite specific way. Beyond the need for accreditation for certain teaching positions, the new model eliminates the possibility of obtaining a stable teaching career for new non-PhDs. This measure, which was designed to improve the quality and competence of the teaching staff, closed off previous promotion tracks that did not require this degree. Some authors have criticized the supposed ideology of excellence, viewing it as the application of Taylorist management techniques (Noll, 2019) and neoliberalist ideas within the university (Conesa-Carpintero & González-Ramos, 2017).

The evolution of the twenty-first-century Spanish university labour model

Although the 2021 LOU regulation and its 2007 reform introduced a new labour model, its implementation was subject to three fundamental forces: economic contingencies, especially periods of boom and bust; the political measures taken by the central government and the universities themselves; and resistance and negotiation on the part of the primary institutional agents, departments and areas. To better understand how these three forces configured the current labour model over time, Table 2 analyses the variations in the different contract positions during four key periods: 2001-08, when the 2001 LOU was in force; 2008-12, when the LOMLOU reform was introduced, but before the so-called austerity policies were applied; 2012-16, a time characterized by cutbacks; and 2016-20, when the austerity policies softened.

Although the first period during which the new labour model was deployed began with the implementation of the LOU in 2001, the historical series of the data collected does not begin until the 2004-05 academic year. Despite this limitation, the evolution of the contract positions can be seen clearly. From the start, there is stagnation in the teaching staff, especially affecting the position of associate professor (TU). At a time of economic expansion and public expenditure growth – university spending increased by around 4 per cent in 2007 with respect to 2004 – the explanation for this phenomenon is partly related to a reduction in the size of the student cohorts, which curbed the need for new hires. In addition to this general phenomenon, there was some resistance in the universities to the entrylevel system established for teachers in the LOU. The new dual control system, in which it was necessary to pass a national qualification competition before going through a selection process in the specific university, met with outright rejection amongst certain levels of the university community (Carreras, 2007), who saw this system as undermining local discretionary power in the selection of candidates

(Corona-Sobrino, 2021). On the other hand, there was an increased in the number of teachers who filled a new type of associate professor position (PCD) that did not require civil service status, a pattern that reveals the one of the characteristics of the LOU labour model: the weakening of the link between the teaching staff and the civil service, or *desfuncionarización*. This process was the result of the combined effect of institutional resistance to the qualification system, the possibility of attaining stability without civil servant status and, above all, an intensification of the legal yoke of non-civil servant teaching positions, which passed the 20 per cent limit established by the LRU in 1983 to reach 49 per cent.

Table 2Evolution of university teaching positions for key new labour market periods

| | Number of hires per position | | | | Net balance ² for each period | | | | |
|------------------|---------------------------------|---------------|---------------|---------------|--|---------------|---------------|---------------|---------------|
| | 2004- 2005 | 2007- 2008 | 2011- 2012 | 2015- 2016 | 2019- 2020 | 2004- 2008 | 2008- 2010 | 2010- 2016 | 2016- 2020 |
| CU | 8.875 | 9.075 | 10.698 | 9.832 | 11.791 | 200 | 1.623 | -866 | 1.959 |
| PTU | 28.371 | 28.509 | 30.056 | 28.884 | 26.964 | 138 | 1.547 | -1.172 | -1.920 |
| PCD | 1.434 | 4.534 | 7.342 | 10.411 | 10.682 | 3.100 | 2.808 | 3.069 | 271 |
| PAD | 984 | 1.869 | 2.820 | 3.176 | 5.378 | 885 | 951 | 356 | 2.202 |
| PAY | 3.018 | 3.021 | 1.815 | 713 | 504 | 3 | -1.206 | -1.102 | -209 |
| PA | 29.770 | 28.917 | 29.903 | 30.084 | 34.854 | -853 | 986 | 181 | 4.770 |
| PSI | 889 | 1.944 | 3.739 | 3.131 | 3.812 | 1.055 | 1.795 | -608 | 681 |
| To be terminated | 16.340 | 17.918 | 11.239 | 7.847 | 5.211 | 1.578 | -6.679 | -3.392 | -2.636 |
| Total | 89.681 | 95.787 | 97.612 | 94.078 | 99.196 | 6.106 | 1.825 | -3.534 | 5.118 |

Source: Authors, from the university staff statistics, historical series, Ministry of Universities and Ministry of Education and Professional Training, 2020.

² The net balance for each period is the product of subtracting the number of professors in the last academic year of the period from the number in first academic year. For example, the net balance for 2004-08 is the product of subtracting the number of professors in 2007-08 from those in 2004-05.

The implementation of the LOU also created a kind of bottleneck in the formal entry-level positions, with very small increases in the number of PADs (not even 1.000 more professors), and especially with the PAYs. The low increase in the former position, assistant professor, is connected to the obligation included in the 2001 LOU to only hire candidates for this position who had spent at least two years in another university (a requirement repealed by the 2007 LOMLOU), which ran completely counter to the selection process requirements in force since the 1980s. The slight increase in teaching assistants, the PAYs, in turn, is explained gradual obsolescence of this position, which did not interest departments and universities. due to their low teaching load (a maximum of six credits a year); indeed, it virtually disappeared during the period analysed. The evolution of the most precarious positions, the PAs and PSIs, show how the LOU did not decrease precariousness. but rather, diversified it. Because of the prerogatives that this law gave the autonomous communities to create new positions, the number of PSIs surged in communities like Andalusia and Galicia. Finally, regarding to the positions that the 2007 LOMLOU would later terminate (adjunct professor and university institute chair and associate professors), the former continued to grow after the LOU created adjunct professor contracts ex novo in 2001, but the number of university institute chair and associate professors decreased (from 14,747 professors in the 2004-05 academic year to 13,453 in 2007-08).

Social, political and academic opposition to the LOU, along with a change in the national government, led to the LOMLOU reform in 2007. The three most important resulting changes in the labour market were: the decision to terminate the positions of adjunct professor and university institute chair and university institute associate professor; the elimination of the requirement to spend two years in another university to gain access to PAD positions; and the replacement of the LOU qualification system by an accreditation system, analogous to requirements for other jobs. None of these measures changed the trends that began with the LOU; to the contrary, it made them more acute. The context and inertia were more influential than the laws. To begin, the desfuncionarización process continued; even though the introduction of the accreditation system led to an increase in the number of civil servant university chair and associate professors, this is no way made up for the decrease in the civil servant positions that were terminated. Secondly, access to the PAD positions continued to be clogged, with only a very slight increase in the number of these positions, despite the simplification of the access process. This can be explained in part by the inability of the professors to meet the new and growing curricular accreditation requirements demanded by the ANECA, but especially because the precarious positions continue to expand, comprising one third of the university teaching staff and becoming a long-term, instead of merely transitional, stage.

The implementation of austerity policies in 2012 (RD-Law 20/2011; RD-Law 14/2012) consolidated the pre-existing trends in the period from 2012 to 2016. The combination of a structural staff hiring freeze along with a staff replacement rate of 0 per cent produced an overall decrease in the university teaching staff that remained nearly constant until 2015 (Figure 1). Only the number of associate professors (PCD) rose significantly, a result of the conventional promotion from assistant professor (PAD) after that contract terminated. Moreover, that trend was accelerated by, firstly, the appearance of the substitute associate professor (profesores contratados doctores interinos, or PCDi), an ad hoc position created to bypass the imposed hiring freeze and mass dismissal of assistant professors and. secondly, the promotion of former adjunct professors. The process of precarization during this period manifested itself in its harshest version; the dismissal or nonrenewal of precarious positions. The state of precariousness also directly affected the substitute associate professors, whose labour conditions and rights fell into a limbo, while the increase in the teaching load affected all the personnel (Santos-Ortega et al., 2015).

Finally, from 2016 to 2020, various changes occurred that created the current labour model in Spanish universities. There was a process of promotion at the top, with a significant decrease in civil servant associate professors that corresponded to an increase in the number of chair professors. The previous replacement rate was raised to 100 per cent in response to the improved economic situation and, especially, a change in government priorities (Law 6/2018). Accordingly, access to the PAD positions opened up, and the bottleneck created by the cutback policies began to break up. However, precariousness continued with an increase in the numbers of professors of practice and substitutes.

The final balance of the evolution described was the widespread extension of a new employment model characterized by three primary factors: 1) the weakening of the link between the teaching staff and civil service (*desfuncionarización*); 2) precariousness and duality; and 3) the aging of the teaching staff.

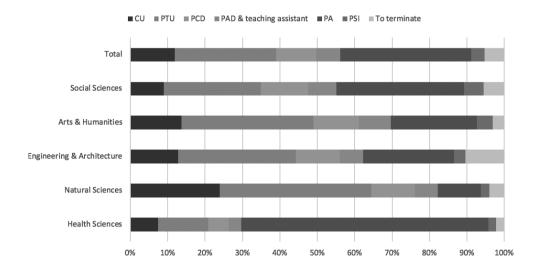
Desfuncionarización is clearly detectable in the evolution of these positions over time (Figure 1). The labour model inherited from the 1983 law, characterized by the prominence of civil servants, changed to one in which non-civil servants are the majority. In this respect, the austerity policies implemented beginning in 2012 did not act as a catalyst in the model but created an impasse. After the hiring freeze, the model did not once again fully develop until the cutback policies were progressively softened. It is not until the 2019-20 academic year that the LOMLOU model became fully functional. Desfuncionarización, then, is not a consequence of the financial crisis and the cutbacks, but a structural decision made by lawmakers.

Figure 1
Distribution of university professors in public Spanish universities, 2004-20

Source. Authors, from the university staff statistics, historical series, Ministry of Universities and Ministry of Education and Professional Training. 2020.

Precariousness goes beyond weakening the civil servant system in the universities. An analysis of the distribution of the university staff positions during the 2019-20 academic year (Figure 2) shows how the precarious PA and PSI positions comprise 40 per cent of the teaching staff. The result is a workplace characterized by its duality, with the structural staff guaranteed stability and good labour and salary conditions as opposed to a precarious staff, who receive low salaries and have unstable work contracts whose length is often unknown. This labour model is the representation of a low-cost university and replicates the staff management policies used by most private companies. Although access to the PAY and PAD positions is a legal beginning to an academic career, the large percentage of PSI and PA positions reveals that this process is actually longer and begins with precarious positions. However, and importantly, the processes of desfuncionarización and precarization described operate differently in the different areas. With the exception of the health sciences, which are subject to distinct hiring criteria, these processes are more common in the social sciences and practically non-existent in the case of the natural sciences (Figure 2).

Figure 2Distribution of university professors by position in the 2019-20 academic year, as a total and by area



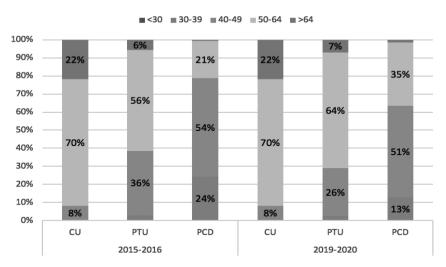
Source. Authors, from the university staff statistics, historical series, Ministry of Universities and Ministry of Education and Professional Training, 2020.

Finally, one notable characteristic of the current university labour model is the aging of the teaching staff (Figures 3 and 4). A comparison of the evolution of the profiles of the different teaching positions by age in the 2015-16 and 2019-20 academic years shows that even during the full economic recovery, all of the positions are following an aging trend, even the most precarious positions. This provides evidence of how the teaching career, from entry to stability, is increasingly developing at an older age. However, there is an important factor that affects the academic years analysed here: the generational 'plug' (created by the 0 per cent replacement rate and blocked entry to a teaching career) is still being loosened, meaning that a decrease in the average age can be expected in upcoming years.

Ranking precariousness: labour models in the different Spanish universities

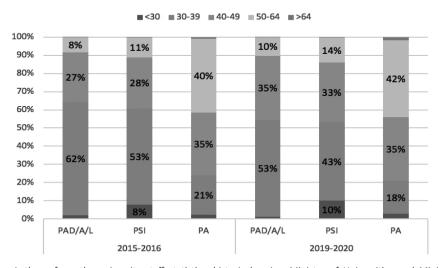
Although the described labour model is applicable to Spanish public universities as a whole, in the current framework of university autonomy, the individual universities end up developing their own labour models, within the boundaries

Figure 3Profile of the teaching staff by age with an indefinite contract, academic years 2015-16 and 2019-20



Source. Authors, from the university staff statistics, historical series, Ministry of Universities and Ministry of Education and Professional Training, 2020.

Figure 4Profile of the teaching staff by age with a temporary contract, academic years 2015-16 and 2019-20



Source. Authors, from the university staff statistics, historical series, Ministry of Universities and Ministry of Education and Professional Training, 2020.

of the law. While some tend to encourage stability and formal promotion tracks to teaching positions, others openly hire teachers to fill precarious positions in an attempt to lower costs. To have a complete picture, therefore, it would be necessary to repeat the previous analysis for each specific university, as well as to analyse. case by case, why they chose one labour model or another, but that undertaking is beyond the scope of this article. However, it is important to emphasize this diversity and show what we call 'the ranking of precariousness'. This ranking can be seen in Table 2, which lists all the public Spanish universities according to the percentage of the teaching staff holding a precarious position in their ranks, considered, in this case, to be interim substitute professors (PSI) and professors of practice (PA). The combination of these positions was selected for two reasons. First, they are the paradigmatic positions of precariousness, due to their low salaries, job instability and poor working conditions. Secondly, the two positions do not exist in all the autonomous communities. For example, PSIs can only be found in Andalusia, the Basque Country, Navarre, Asturias and Murcia, For that reason, the two groups need to be considered together in order to rank all the Spanish universities, since while precarious positions in some communities are camouflaged as false associates (Díaz-Santiago, 2013), others tend to employ substitutes.

The top positions in the ranking are filled by universities whose percentage of precarious professors nears or surpasses 50 per cent. Here, the Catalonian universities, which occupy the top six positions, loom large. Only one Catalonian university, Politécnica de Catalunya, is not in the top ten: it holds the eleventh position. Precariousness in Catalonian universities is a deeply-rooted phenomenon. Their employment model seems to be based on saving costs through the hiring of false associates (who in most cases comprise more than half the teaching staff) and very closed access to a regulated teaching career, with an extremely low percentage of lecturers (a position equivalent to assistant professor in the rest of the country). A similar model is followed by a number of other universities in the country: Carlos III de Madrid, Universidad de las Islas Baleares and Miguel Hernández de Elche. It may be possible to explain the high percentage of PAs at Carlos III by the university's specialization in the field of healthcare, which usually employs a large number of professors of practice who are also health professionals, as will be briefly discussed below. Finally, the tenth position is filled by the Universidad Pablo de Olavide in Seville, the only Andalusian university in the top ten.

Table 3Distribution of university professor positions in the 2019-20 academic year in Spanish public universities (ordered by percentage of precarious positions)

| | TU and CU | PCD | PAD and PAY | PA | PSI | To be terminated |
|---------------------------|--------------|-----|----------------|-----|-----|------------------|
| Rovira i Virgili | 16% | 9% | 2% | 69% | 0% | 5% |
| Pompeu Fabra | 22% | 15% | 2% | 60% | 0% | 1% |
| Girona | 24% | 13% | 1% | 60% | 0% | 3% |
| Barcelona | 24% | 11% | 3% | 58% | 0% | 3% |
| Autónoma de Barcelona | 26% | 14% | 1% | 58% | 0% | 1% |
| Lleida | 22% | 13% | 3% | 55% | 0% | 7% |
| Carlos III de Madrid | 41% | 1% | 8% | 51% | 0% | 0% |
| Illes Balears (Les) | 29% | 13% | 6% | 50% | 0% | 2% |
| Miguel Hernández de Elche | 33% | 7% | 8% | 47% | 1% | 5% |
| Pablo de Olavide | 26% | 18% | 7% | 33% | 14% | 2% |
| Politécnica de Catalunya | 27% | 15% | 2% | 46% | 0% | 10% |
| Jaume I de Castellón | 35% | 9% | 8% | 46% | 0% | 2% |
| Murcia | 41% | 9% | 2% | 45% | 1% | 2% |
| Alcalá | 41% | 6% | 5% | 45% | 0% | 3% |
| Zaragoza | 38% | 8% | 6% | 44% | 0% | 4% |
| Alicante | 37% | 6% | 8% | 44% | 0% | 5% |
| Rey Juan Carlos | 33% | 9% | 12% | 43% | 0% | 2% |
| Pública de Navarra | 33% | 16% | 7% | 41% | 2% | 1% |
| València (Estudi General) | 41% | 6% | 8% | 43% | 0% | 2% |
| Burgos | 30% | 9% | 7% | 42% | 0% | 12% |
| Córdoba | 39% | 9% | 8% | 24% | 16% | 5% |
| Málaga | 45% | 6% | 4% | 22% | 17% | 5% |
| Castilla-La Mancha | 34% | 16% | 6% | 39% | 0% | 5% |
| Complutense de Madrid | 38% | 14% | 7% | 38% | 0% | 3% |
| Salamanca | 41% | 9% | 7% | 38% | 0% | 6% |
| Cádiz | 37% | 7% | 9% | 20% | 18% | 10% |
| Cantabria | 41% | 10% | 9% | 38% | 0% | 2% |
| Valladolid | 40% | 9% | 6% | 37% | 0% | 7% |
| Huelva | 38% | 7% | 6% | 14% | 24% | 11% |

| | TU and CU | PCD | PAD and PAY | PA | PSI | To be terminated |
|---|--------------|-----|----------------|-----|-----|------------------|
| Las Palmas de Gran Canaria | 41% | 10% | 3% | 35% | 0% | 12% |
| País Vasco/Euskal Herriko Unibertsitatea | 30% | 15% | 12% | 18% | 16% | 9% |
| Extremadura | 41% | 13% | 4% | 27% | 6% | 10% |
| Politécnica de Cartagena | 49% | 11% | 2% | 23% | 7% | 9% |
| León | 47% | 6% | 11% | 28% | 0% | 8% |
| Sevilla | 49% | 10% | 6% | 19% | 9% | 8% |
| Vigo | 48% | 18% | 3% | 22% | 5% | 4% |
| Almería | 55% | 5% | 9% | 13% | 14% | 4% |
| Santiago de Compostela | 53% | 14% | 4% | 21% | 6% | 3% |
| Autónoma de Madrid | 41% | 19% | 13% | 26% | 0% | 1% |
| Oviedo | 54% | 6% | 9% | 23% | 3% | 6% |
| A Coruña | 41% | 14% | 6% | 14% | 12% | 13% |
| La Laguna | 50% | 11% | 8% | 21% | 4% | 6% |
| Politècnica de València | 54% | 8% | 3% | 25% | 0% | 10% |
| La Rioja | 64% | 5% | 0% | 24% | 0% | 6% |
| Jaén | 54% | 11% | 6% | 7% | 15% | 7% |
| Politécnica de Madrid | 45% | 10% | 14% | 20% | 0% | 11% |
| Granada | 60% | 9% | 8% | 12% | 6% | 5% |
| Nacional de Educación a Distancia | 58% | 21% | 8% | 9% | 0% | 5% |

Source. Author, from the university staff statistics, historical series, Ministry of Universities and Ministry of Education and Professional Training, 2020.

This ranking can also be read in reverse, showing the universities that chose to offer more stable contract positions within the existing legal framework. The universities at the end of the Table, in positions 39 to 49, are characterized by a teaching staff in which only 25 per cent or less hold a precarious position. The last places are occupied by the UNED (National University of Distance Education) and the Universidad de Granada, the Spanish universities whose labour models tend most towards stabilization. Moreover, both have similar characteristics: a high number of civil servant professors and a very low percentage of precarious teaching positions. The top five universities with the least precariousness are Politécnica de Madrid, Universidad de Jaén and Universidad de La Rioja, all of which have very similar distributions with the exception of La Rioja, where there is an absence of entry-level positions for a formal teaching career.

Although these rankings only consider the percentage of precarious professors (PA and PSI), their larger or smaller presence can be explained by more complex causes. The aging of the teaching staff may be behind the high number of civil servants, as could be the specialization offered by each university, which may justify the numbers of professors of practice. For example, this position is common in specific fields like the health sciences, where lessons are quite justifiably taught by professionals in the field, as is the case to a lesser extent in engineering, architecture and other areas where interim professionals can provide important training. Moreover, the hiring freeze that accompanied the financial crisis often generated partial solutions, including placing teachers in precarious positions. Even in the latest academic year analysed here, this 'plug' persists; as a result, the Table may not necessarily reflect the effort being made by different universities to stabilize their teaching staff.

DISCUSSION AND CONCLUSION

Twenty years after the beginning of the last major university reform, Spanish public universities find themselves with a more competitive model in which. according to the imperatives of excellence and quality, having a PhD and national accreditation have become indispensable requirements for access to a teaching position. However, these objectives have only been partially achieved (Marugán-Pintos & Cruces-Aguilera, 2013). The implementation of a new model in a context of cutbacks and financial crisis partly compromised the initial aspirations. Although new positions like the associate professor (PCD) have stabilized, the cutbacks led to an increase in precariousness amongst the teaching staff, very much so for the PA and PSI positions, and created a generational plug blocking entry-level access that has only begun to loosen in the last few years. Beyond causing obvious problems for the lives and careers of teachers who have come up against this barrier (Santos-Ortega et al., 2015), it translated into the emergence of a new entryway into the teaching career that differed from the formal entry-level opening stipulated by law. The high number of PA and PSI positions and the aging of the PAD and PCD professors provide evidence that teaching careers begin at a lower rank than assistant professor (PAD) and that teachers certainly spend more time in precarious positions. The abuse of temporary hiring during the period of cutbacks created the impression that there is a real 'state of employment emergency' in many public universities (Moreno-Gené, 2018), which led to an increase in lawsuits to try to correct the situation. Indeed, some forms of labour discrimination have only been contained by legal rulings.

This situation has produced an overqualification amongst the teaching staff, which at the same time, has seen its possibilities for growth and promotion limited

by restrictions governing the responsibilities that teachers in non-permanent positions can take on (Agulló-Fernández, 2013; Díaz-Santiago, 2013; Torrado et al., 2021). Professors in these posts also encounter a bottleneck where candidates who have moved up through precarious positions run up against people who followed international careers, but have opted for reintegration contracts and a return to research (Castillo & Moré, 2016). One of the main aims of the draft version of the new Spanish Universities Law (LOSU) is a reduction in precariousness for the teaching staff. However, given that this new regulation is still in the pipeline and has, moreover, encountered some misgivings in some trade union organizations, it is too early to know if it will efficiently counteract a trend that is now fully established in some universities.

However, this widespread precariousness does not affect all the universities or fields equally. The fact that precariousness is worse in the social sciences than in the natural and technical sciences is directly related to the design of the accreditation systems, which are based on tools (rankings and indices) and metrics that had been incorporated into those fields long ago, while the disciplines within the social sciences were integrated later and somewhat reluctantly (Tejero-Tejero & Jornet-Melià, 2008; Galán et al., 2014).

The self-governance of universities has resulted in the creation of clearly differentiated labour models. While some tend towards a low-cost university model based on a majority comprising professors of practice, others have often opted to encourage a formal promotion route and reduce the number of teachers in precarious positions to a minimum. A more complete understanding of these differences will require in-depth studies of each university that consider the demand for teachers, budget limitations and the decisions taken by different rectorates. Universities with precarious staff could drastically reduce their personnel to what is necessary, although this flexibility in the face of potential budget restrictions has consequences, including a brain drain from the most precarious universities (Sanz-Menéndez, 2020). It is also essential to examine the repercussions of precariousness on academic production and its quality (Morales et al., 2022). Teachers who have to work under the Sword of Damocles of dismissal and precariousness may be very productive in the short term, but this model is not fair, desirable or sustainable in the long term. As a study of Catalonian public university professors found, there is a clear link between contract precariousness and low satisfaction, with an associated increase in stress levels and a deterioration in physical and mental health (Cladellas-Pros et al., 2018). Precariousness wears away at workers and must be combatted, since its extension undermines the teaching and research potential of universities.

REFERENCES

- Agulló-Fernández, I. (2013). Eternamente doctores: ¿mérito o carga?. *Sociología del Trabajo*, 78, 35-50. http://sl.ugr.es/stats/agullo2013
- Carreras, J. (2007). Evaluación de la calidad docente y promoción del profesorado. *Educación médica, 10*(2), 69-85. http://sl.ugr.es/stats/carreras2007
- Castillo, J.J. & Moré, P. (2016). Por una Sociología del trabajo académico. La precarización del trabajo de enseñar e investigar en la Universidad. *Sociología del Trabajo, 88*, 7-26. http://sl.ugr.es/stats/castillo_more2016
- Castillo-Olivares, J.M., Escuela-Cruz, C. & Torrado, E. (2020). La Macdonalización del Sistema Universitario: Un caso de explotación del profesorado precario en la Universidad de La Laguna y su crisis sindical. *International Journal of New Education*, 5, 117-132. https://doi.org/10.24310/IJNE3.1.2020.8728
- Cladellas-Pros, R., Castelló-Tarrida, A. & Parrado-Romero, E. (2018). Satisfacción, salud y estrés laboral del profesorado universitario según su situación contractual. *Revista de Salud Pública*, 20, 53-59. https://doi.org/10.15446/rsap. V20n1.53569
- Conesa-Carpintero, E. & González-Ramos, A.M. (2017). Neo-gerencialismo y austeridad en el contexto académico español y europeo ¿Dos caras de una misma moneda?. *Política y Sociedad, 55*(1), 257-282. https://doi.org/10.5209/POSO.55883
- Corona-Sobrino, C. (2021). Análisis de las dinámicas de producción de conocimiento científico bajo el sistema de evaluación de la calidad de la educación superior y la ciencia. (Tesis doctoral inédita). Departamento de Sociología y Antropología Social, Universidad de Valencia, Valencia. http://sl.ugr.es/stats/corona2021
- Díaz-Santiago, M.J. (2013). Experiencia no académica: el profesorado asociado como actor doblemente precarizado. *Sociología del Trabajo, 78*, 51-71. http://sl.ugr.es/stats/diaz2013
- Farrerons, O. (2005). *Evolución histórica de la universidad española*. Barcelona: Universidad Politécnica de Catalunya. http://sl.ugr.es/farrerons2005
- Galán, A., González-Galán, M. & Rodríguez-Patrón, P. (2014). La evaluación del profesorado universitario en España. Sistema nacional y divergencias territoriales. *Revista de Educación*, *366*, 136-164. http://hdl.handle.net/11162/105914
- García-Calavia, M.A. (2014). El trabajo del profesorado de las universidades públicas españolas. Un estudio de caso. *Sociología del Trabajo, 82*, 28-50. http://sl.ugr. es/stats/garciacalavia2014
- García-Calavia, M.A. (2015). El profesorado universitario en España. Cambios en su configuración estatutaria y demográfica. *RES, Revista Española de Sociología, 24*, 85-94. http://sl.ugr.es/stats/garciacalavia2015
- García-Calavia, M.A. & Montes-Suay, F. (2018). ¿De las carreras organizacionales a las carreras "sin fronteras"? El caso del profesorado de la Universidad de Valencia. *Sociología del Trabajo*, *93*, 267-286. http://sl.ugr.es/stats/garciacalavia2018

- Hernández-Armenteros, J., Pérez-García, J.A., Haug, G., Embid-Irujo, A., Rodríguez, J.C., Marcellán, F., Gómez-Montoro, Á.J., Vidal, J., Moreso, J.J., García-Benau, M.A. & Vilalta, J.M. (2017). *Demografía universitaria española: una aproximación a su dimensión, estructura y evolución*. Madrid: Studia XXI.
- Ley 83/1965, de 17 de julio, sobre estructura de las Facultades Universitarias y su Profesorado. Boletín Oficial del Estado, 173, de 21 de julio de 1965. https://www.boe.es/buscar/doc.php?id=BOE-A-1965-12496
- Ley 6/2018, de 3 de julio, de Presupuestos Generales del Estado para el año 2018. Boletín Oficial del Estado, 161, de 4 de julio de 2018. https://www.boe.es/eli/es/I/2018/07/03/6/con
- Ley Orgánica 11/1983, de 25 de agosto, de Reforma Universitaria. Boletín Oficial del Estado, 209, de 1 de septiembre de 1983. https://www.boe.es/eli/es/lo/1983/08/25/11
- Ley Orgánica 6/2001, de 21 de diciembre, de Universidades. Boletín Oficial del Estado, 307, de 24 de diciembre de 2001. https://www.boe.es/eli/es/lo/2001/12/21/6
- Ley Orgánica 4/2007, de 12 de abril, por la que se modifica la Ley Orgánica 6/2001, de 21 de diciembre, de Universidades. Boletín Oficial del Estado, 89, de 13 de abril de 2007. https://www.boe.es/eli/es/lo/2007/04/12/4
- Marugán-Pintos, B. & Cruces-Aguilera, J. (2013). Fragmentación y precariedad en la universidad. *Sociología del Trabajo, 78*, 10-34. http://sl.ugr.es/stats/marugan_cruces2013
- Morales, C., Muñoz-Cortés, E., Soriano, L., & Sánchez, C. (2022). Investigación y Jóvenes investigadores: La Excelencia en la precariedad. *Encuentros multidisciplinares*, 70, 1-10. http://sl.ugr.es/stats/morales2022
- Moreno-Gené, J. (2017). El uso y abuso de la contratación temporal del profesorado universitario: ¿Fin del "estado de excepción laboral" en las Universidades Públicas?: A propósito de la sentencia del Tribunal Supremo de 1 de junio de 2017. Revista General de Derecho del Trabajo y de la Seguridad Social, 46.
- Noll, H. (2019) ¡Es el taylorismo, estúpido! Sobre la nueva organización científica de la investigación y la docencia en la Universidad Española. *Sociología del Trabajo*, 95, 1-18. http://sl.ugr.es/stats/noll2019
- Pérez-Díaz, V. & Rodríguez, J.C. (2001). *Educación Superior y futuro de España*. Madrid: Fundación Santillana.
- RD-ley 20/2011, de 30 de diciembre, de medidas urgentes en materia presupuestaria, tributaria y financiera para la corrección del déficit público. Boletín Oficial del Estado, 315, de 31 de diciembre de 2011. https://www.boe.es/eli/es/rdl/2011/12/30/20/con
- RD-ley 14/2012, de 20 de abril, de medidas urgentes de racionalización del gasto público en el ámbito educativo. Boletín Oficial del Estado, 96, de 21 de abril de 2012. https://www.boe.es/eli/es/rdl/2012/04/20/14/con

- Santos-Ortega, A., Muñoz-Rodríguez, D. & Poveda-Rosa, M. (2015). En cuerpo y alma. Intensificación y precariedad en las condiciones de trabajo del profesorado universitario. *Arxius*, *32*, 13-44. http://hdl.handle.net/10550/49026
- Salaburu, P. (2007). *La universidad en la encrucijada. Europa y EEUU*. Madrid: Academia Europea de Ciencias y Artes.
- Sanz-Menéndez, L. (2020). La atracción del talento y la política de recursos humanos de las Universidades. En E. Alcón, F. Michavila & M. Ripollés (eds.), *Más talento para la universidad española. Retenerlo, atraerlo, y recuperarlo* (pp. 159-184), Madrid: Tecnos.
- Tejedor-Tejedor, F.J. & Jornet-Meliá, J. M. (2008). La evaluación del profesorado universitario en España. *Revista electrónica de investigación educativa*, 10(Especial). 1-29. http://sl.ugr.es/stats/tejedor2008
- Torrado, J.M., Baldán-Lozano, H. & Duque-Calvache, R. (2021). Coordinación docente y precariedad. Modelos de coordinación en la enseñanza de la Sociología en Andalucía. *RASE, Revista de Sociología de la Educación, 14*(3), 370-390. https://doi.org/10.7203/RASE.14.3.20902