

Preliminary results of the survey on the predoctoral researchers of the “Federación de Jóvenes Investigadores FJI-PRECARIOS” (Federation of Young Researchers FJI-PRECARIOS)

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Abstract

Research careers in Spain have traditionally been characterized by precarious working conditions (low salaries, lack of stability, etc.). Numerous researcher associations and unions have denounced this situation and have promoted measures to reverse this situation. To document this setting, the Federation of Young Researchers (FJI-Precarios) has compiled information on the employment situation of people engaged in predoctoral research in public and private universities and public or private centers in Spain. This report discusses preliminary results of the data obtained in this survey.

1 Introduction

The precarious conditions faced by PhD students and young researchers in Spain have with significant impacts on their mental health and job prospects. Between 50-60% of doctoral researchers may experience psychological problems, with factors like gender, program duration, and work-life interference contributing to poor mental health outcomes [1], making PhD students more vulnerable to psychological disorders compared to the general population [5]. Young researchers often face job insecurity, low incomes, and high-stress levels, potentially compromising the future of research [3]. The Spanish labour market has seen increased employment precarization, affecting both temporary and permanent workers, with a strong association between precarious employment and poor mental health [2]. Austerity policies and labor reforms have intensified this trend, leading to a normalization of precarity in academia and beyond, with limited alternatives available for highly educated individuals [4]. These findings underscore the urgent need for measures

to address mental health issues and improve working conditions for early-career researchers in Spain. The Federation of Young Predoctoral Researchers (FJI/Precarios) has launched a survey of the predoctoral collective to obtain updated data on working relationships and functions, concerns and what action they are taking to curb precariousness.

2 Methodology

A survey was designed and structured in four blocks: personal situation at the university; development of the predoctoral stage; teaching; and impact of research activity on daily life. It was answered online and the estimated time is 20-30 minutes. Questions are presented in different formats: single-answer, short-answer, multiple choice and rating panels. A sample of 1499 predoctoral researchers enrolled in a Spanish University was reached with a non-probabilistic convenience sample by social media dissemination since there is no official data on the universe to make a representative survey. Confirmation that they were predoctoral researchers was made with the question “When do you plan to read the doctoral thesis?”. The fieldwork was developed between October and December 2023. The sample was collected by distributing the survey link through the FJI social networks (Twitter and Facebook). The data analysis was performed using R and involved descriptive statistics.

The objective was to pay special attention to issues such as working conditions (type of contracts and grants, availability of resources, financing of work), teaching activities, and repercussions of research activity on health, family life and leisure.

3 Results

The PhD candidates surveyed had a mean age of 29.1 years (Mdn = 28, SD = 5.47; min = 22; max = 64), with 2.5% aged between 46-64. Women made up 58.3% of the sample (n = 874). In terms

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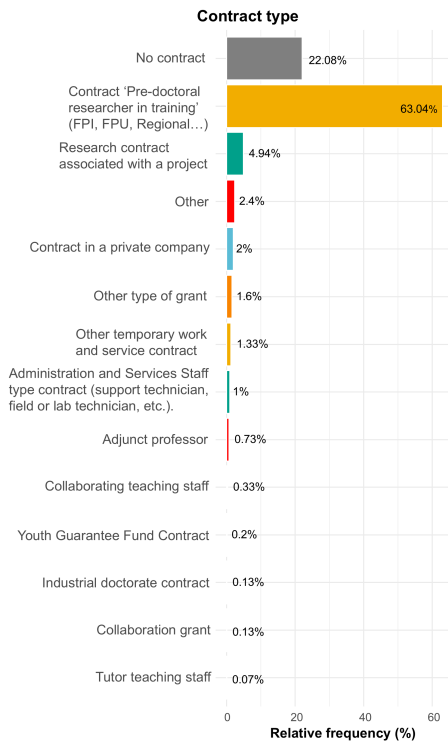


Figure 1: Type of contract reported by the PhD candidates

of residence, 22% were from Catalonia, 14.3% from Madrid, 11.7% from Andalusia, 11% from Valencia, and the remainder from other regions, each below 7%. For field of study, 36.2% were in Life and Health Sciences, 21.2% in Exact and Natural Sciences, 30.5% in Social and Legal Sciences, 6.7% in Engineering and Architecture, and 5.3% in other fields. Regarding parents' education, 36.9% of fathers and 39.4% of mothers had university degrees, while 14.1% of fathers and 12.2% of mothers had only primary education. Finally, 73.4% attended public schools, 17.6% attended charter schools, and 9% attended private schools.

3.1 Type of Contract

Figure 1 shows the different contracts that the PhD students reported having. A total of 77.9% of respondents hold a predoctoral contract, with 66.9% working at public universities and 26.5% at research centers. Other institutions (private companies, private universities, third sector, or self-employed) were selected less frequently. Predoctoral contracts are most common in Life and Health Sciences, Exact and Natural Sciences, and Social and Legal Sciences. The latter has the highest percentage of predoctoral researchers without a contract. The most common type of contract is the 'pre-doctoral researcher in training' contract. Nearly all respondents (96.8%) work on their thesis full-time, with only 3.2% part-time. Predoctoral contracts are the main funding source for 69.5%, followed by training or professional collaboration grants, private employment, and other options.

Predoctoral researchers' reasons for not joining a trade union

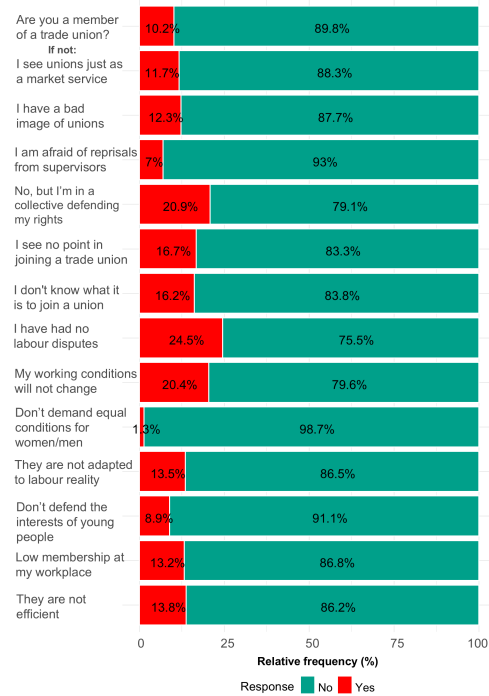


Figure 2: Reasons to not be affiliated to a union

3.2 Union Membership

Figure 2 shows the reasons not to be affiliated to a union. Only 10.2% of the sample reported being union members, while 18.7% indicated they were part of a research organisation or collective. Most respondents did not express negative attitudes toward unions; in open-ended responses, they cited lack of time, uncertainty about how to participate, unfamiliarity with unions representing their rights, or simply not considering that option. Some also mentioned challenges related to joining a union without a predoctoral contract.

3.3 Knowledge and Perceptions of Working Conditions

A 59.6% majority reported not knowing about the "Estatuto del Personal Investigador en Formación" (EPIF), while 40.4% were familiar with it (35.7% with a predoctoral contract and 4.7% without one). Of those aware of the EPIF, 51.8% felt it was properly applied, 25.9% were unsure, and 22.3% believed it was misapplied. Regarding their workplace's collective agreement, 64.2% were unfamiliar; 27.4% had limited knowledge, 6.8% knew it well, and 1.5% knew it thoroughly. On salary adequacy, 32.5% found their earnings insufficient for basic expenses, with only 7.5% able to save. Additionally, 56.8% had received at least occasional financial support from family, with 18.5% receiving it regularly.

Figure 3 shows the distribution of responses of hours spent on research per week per contract versus hours actually spent. Research contracts stipulate an average workload of 36.9 hours per

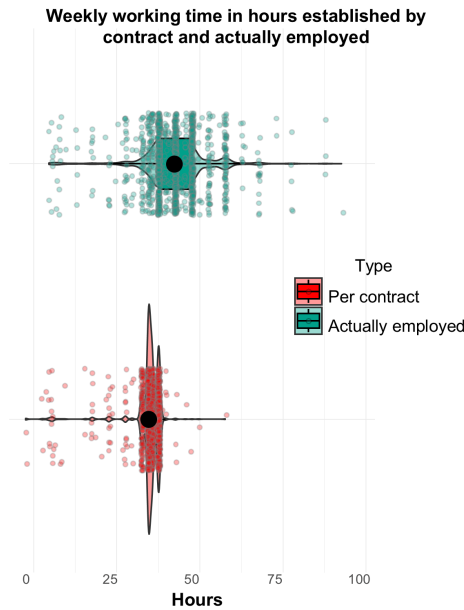


Figure 3: Hours spent working in research per week (per contract vs. actually employed)

week (Mdn = 37, SD = 5.14; range = 0–60). However, the actual average weekly hours worked is 44.6 (Mdn = 45, SD = 10.04; range = 7–95).

45.2% reported working weekends, while 32.8% did not. Unrecognized teaching was performed by 29.3%, with women twice as likely as men to undertake it. Overall, 62.2% were asked to teach without recognition at least once, with 7.9% experiencing frequent requests. Women received these requests more often than men (37.3% vs. 24.9%).

3.4 Economic Costs Incurred

83.9% of predoctoral researchers surveyed reported attending conferences. Of these, 1.5% prefer to cover costs themselves to avoid bureaucratic processes, but 84% reported needing to advance conference expenses, with only 8.3% able to avoid upfront payments (see Figure 4). Fieldwork was required for 57.1% of respondents, with 64.2% needing to advance some expenses (whether reimbursed or not), while 26.5% did not need to advance funds (see Figure 5). Additionally, 38.9% completed research stays. Among these, 44.1% received travel funding, while 55.9% did not. For accommodation, 74.6% received no support, and only 25% had housing expenses partially covered. A total of 5.5% reported no funding for any costs related to research stays (see Figure 5).

3.5 Occupational Health

Figure 6 shows the percentages of respondents that have attended psychological care service for work-related reasons and the type of service that they used. 36.5% of respondents reported seeking psychological support for work-related issues, with women more

Financing of expenses in the pre-doctoral collective

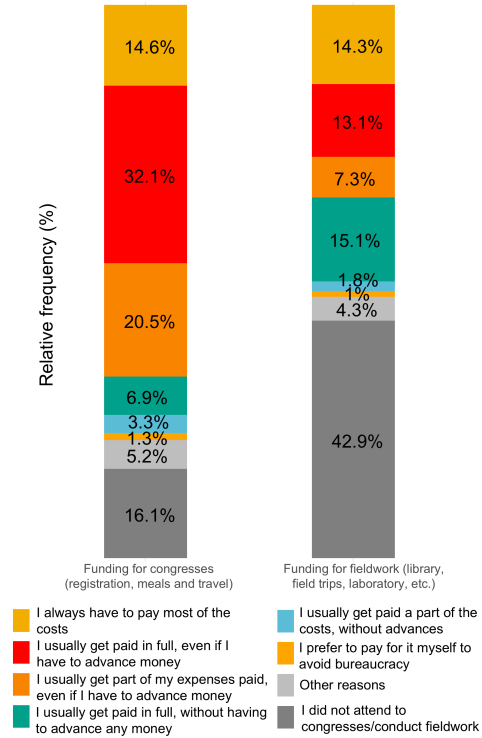


Figure 4: Financing of expenses in the predoctoral researchers - attendance at conferences and field work

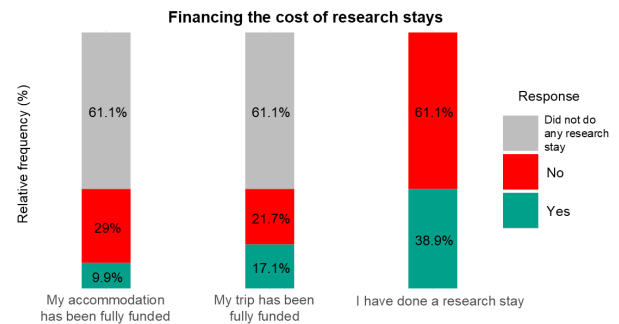


Figure 5: Financing of expenses in the predoctoral researchers - research stays

likely to use private services. Additionally, 94.7% stated that research work had affected their health to some degree, with 38.8% reporting a “significant” impact (see Figure 7). In terms of work-life balance, 36.4% found research work fairly compatible, 32% somewhat compatible, 9.4% very compatible, and 22.2% reported low to no compatibility (see Figure 8).

4 Conclusion

The preliminary results of the survey reveals a high prevalence of precarious conditions among PhD candidates in Spain with substantial impacts on both occupation health and quality of life. A

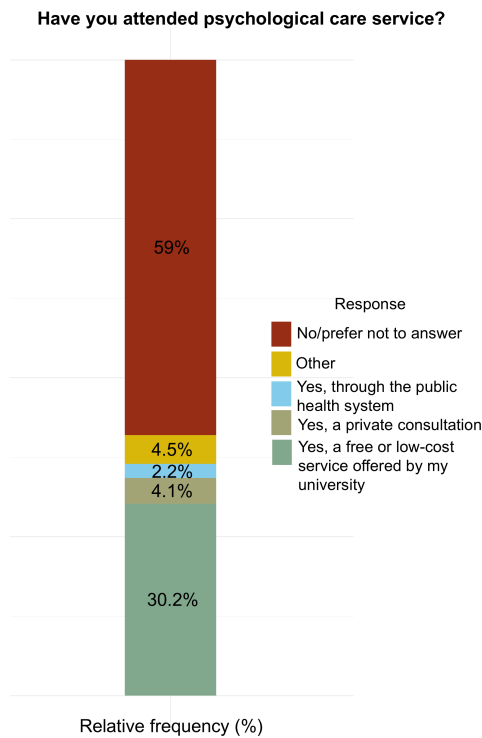


Figure 6: Relative frequencies of attendance at a psychological care service for work-related reasons.

vast majority of respondents face issues like inadequate pay, often requiring financial support from family, the need to advance work-related expenses—many of which are not fully reimbursed—, and excessive workloads that frequently exceed contractual hours, averaging nearly 45 hours weekly despite a standard of 37 hours per week. Awareness of labor protections is limited; many respondents are unaware of both the EPIF statute and their institutions’ collective agreements, underscoring an information gap in labor rights education for early-career researchers. Union membership remains low, partially due to time constraints and limited understanding of unions’ relevance to researchers’ challenges, but especially due to the difficulty of joining a union without an employment contract (e.g., conducting a thesis without funding). However, it is notable that nearly 20% expressed interest in participating in non-union collectives that advocate for their labor rights. A significant number of researchers report negative health outcomes linked to job stress, with nearly all respondents indicating some degree of impact on their occupational health, and over a third experiencing serious effects. Gender disparities are also notable: women face higher demands for unrecognized teaching duties and psychological support, highlighting a need for gender-sensitive policies in academia. Nearly 40% of respondents highlight academic schedule flexibility as beneficial for balancing work with personal life, while 60% find it problematic. This underscores the need to establish clear boundaries for working hours to achieve a balance that accommodates flexible scheduling while preventing overwork. Overall,

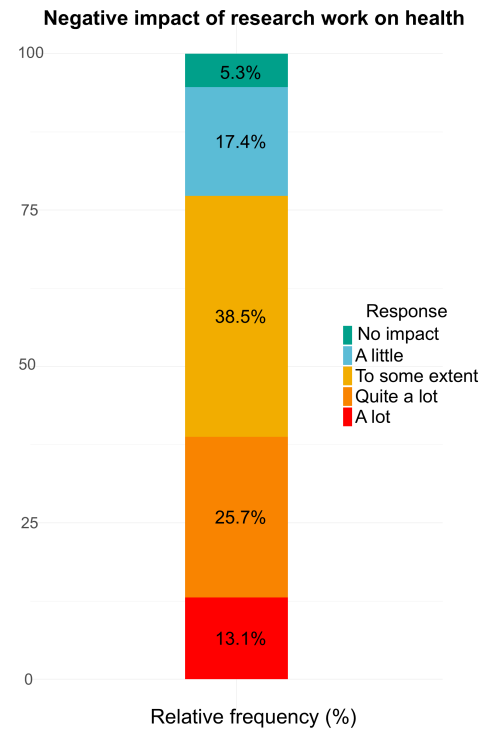


Figure 7: Relative frequencies of negative impact of research work on health

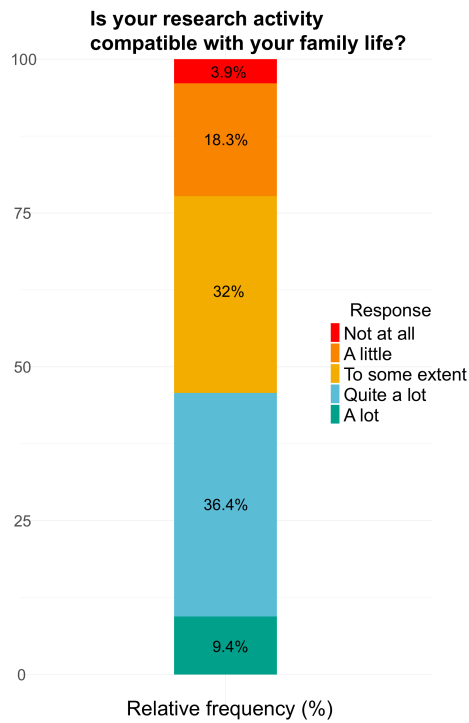
these findings underscore the urgent need for systemic reforms to address working conditions, financial stability, and mental health support for early-career researchers in Spain, as well as improved communication of labor protections and increased institutional support.

4.1 Future Work

Further data analysis of this survey is essential to statistically assess whether significant differences exist across various demographic factors, such as research areas, as funding levels vary significantly among fields. Given the non-probabilistic convenience sample method, it would be valuable to administer this questionnaire to individuals pursuing their thesis without a predoctoral contract, as they have less protection compared to those with research-related contracts. It would also be valuable to analyze and compare these variables with the data collected from the postdoctoral collective—a group with even less regulatory protection than predoctoral researchers—to better understand career trajectories and assess levels of precariousness across research stages.

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Figure 8: Relative frequencies of work-life balance