

Labour market

EMPLOYMENT OUTCOMES FOR **DOCTORAL GRADUATES** OF CATALAN UNIVERSITIES

2026

AQU CATALUNYA

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INTRODUCTION

This document presents the **seventh edition of the study on employment outcomes for doctoral graduates of the Catalan Higher Education System (HES)**. The study forms part of the analyses that AQU Catalunya carries out every three years to provide data and benchmarks on the quality of the employment outcomes of doctoral graduates three years after completing their doctorate.

This information is particularly relevant in an international context in which the evidence on the professional careers of doctoral degree holders tends to be partial, unrepresentative or fragmented (Hnatkova et al. 2022; Yang and Fumasoli 2024). Similarly, evidence regarding the professional work carried out by doctoral degree holders outside academia remains scarce (Garcia-Morante et al. 2025a). Against this backdrop, since 2008 the Catalan HES has had one of the few sources worldwide of systematic, representative and regular information on the professional careers of doctoral graduates. This continuity makes it possible to analyse not only the employment status of recent doctoral graduates, but also the evolution of their careers and the impact of their doctoral education over time.

The value of doctoral education, both for those who pursue it and for society as a whole, is often debated. This report provides empirical evidence to answer some of the key questions in this debate: where do doctoral degree holders work? What skills do they acquire during the doctoral degree programme? What professional opportunities do they have outside academia? What are their working conditions? Are they satisfied with the education they received? In addition, this edition includes new features, such as questions on how useful the skills acquired during the doctorate are at work, and on the mental health problems that may arise during doctoral studies.

A total of 3,200 doctoral graduates took part, representing 64% of the reference population: those who completed their doctorate in the 2020-2021 and 2021-2022 academic years. A breakdown of the sample is provided in the data sheet at the end of the document. Including responses from previous editions, the database contains nearly 12,900 responses, an exceptional time series for analysing trends in employment outcomes, employment conditions and the use of skills acquired during the doctorate.

The main findings of this study can be summarised as follows:

- Practically all doctoral degree holders are working three years after completing their studies.
- Half of recent doctoral degree holders are working in non-academic positions.
- Stable employment is growing steadily.
- Nominal wages are rising, but inflation is eroding purchasing power.
- Almost half of doctoral degree holders have leadership responsibilities.
- The skills acquired during the doctorate are an asset in our economy, both inside and outside academia.
- The main skills gap is still in the area of teamwork.

- The reform of doctoral education introduced by Royal Decree 99/2011 does not appear to have boosted the proportion of theses carried out within research groups, despite the clear positive impact of research groups on doctoral students' skills development.
- One out of three doctoral students has experienced mental health problems.

CHAPTER 1. WHO ARE THE RECENT DOCTORAL GRADUATES OF THE CATALAN HES?

The main findings are as follows:[1]

- Over the past five years, the number of doctoral theses in the Catalan HES has stabilised at around 2,500 annually.
- Catalonia is the autonomous community that produces the most doctoral graduates, accounting for approximately 22% of all doctoral theses defended in Spain.
- The Health field accounts for nearly one out of three doctoral theses and has established itself as the leading field of doctoral research, whereas Social Sciences predominates in bachelor's and master's degrees.
- Women account for approximately half of doctoral degree holders, but they remain under-represented in the field of Engineering, where their presence is significantly smaller.
- The Catalan HES stands out for its capacity to attract international talent: one out of three doctoral graduates is a foreign national, a proportion higher than the Spanish average.

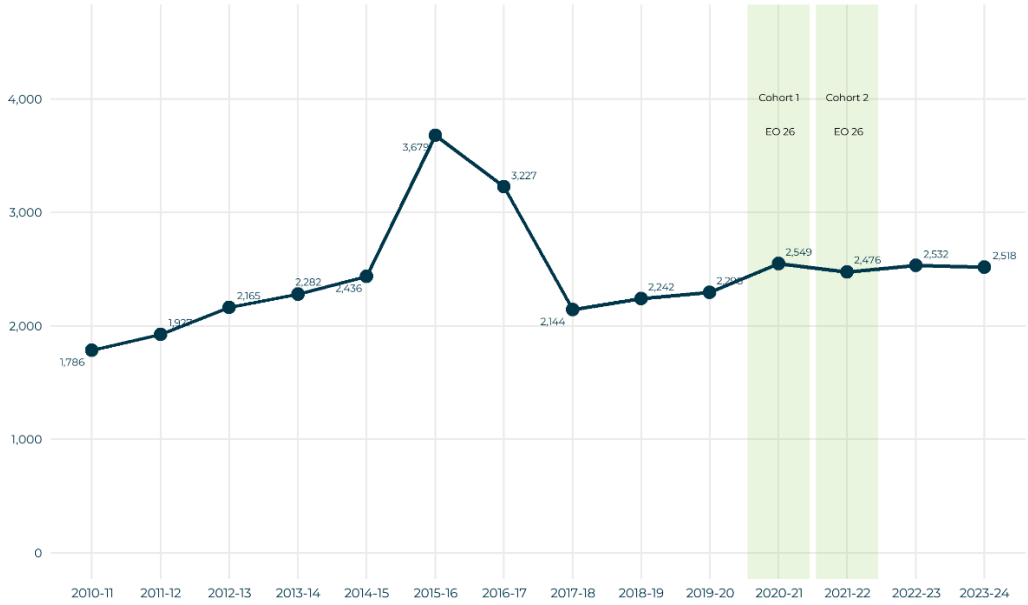
[1] The data for Catalonia included in this chapter are population-based and come from the UNEIX information system, coordinated by the Government of Catalonia's Secretariat for Universities and Research.

→ 1.1. TRENDS IN THE DOCTORAL GRADUATE POPULATION

The annual number of doctoral graduates has remained stable in recent years, at around 2,500

- Over the whole period, the high number of theses passed in the 2015-2016 and 2016-2017 academic years stands out. This was due to the phasing out of the doctoral regulations that preceded Royal Decree 99/2011, which forced a significant number of doctoral students to complete their doctorate if they wanted to avoid being subject to the new decree.

Figure 1. Trends in the doctoral graduate population at Catalan universities



Source: UNEIX.

Catalonia produces 22% of all doctoral theses in Spain

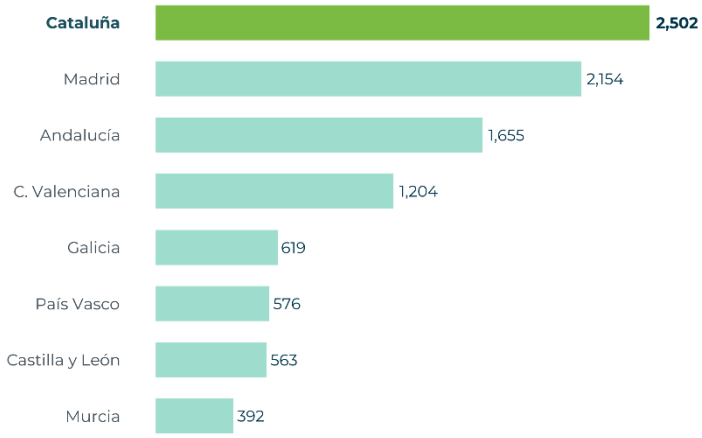
- Since 2017, Catalonia has been the autonomous community with the highest number of doctoral theses passed, according to data from the Spanish Ministry of Science, Innovation and Universities (2026).

- In the international context, Spain ranks close to the OECD average in terms of the proportion of young people with doctoral degrees. According to OECD data[2] for 2024, 0.6% of the Spanish population aged between 25 and 34 holds a doctoral degree, while the average for OECD countries is 0.7%.

[2] OECD Data Explorer and OECD (2025)

- The countries with the highest proportion of young doctoral degree holders include Switzerland (2.4%), the United States (1.8%) and the United Kingdom (1.3%), well above the figure for Spain.

Figure 2. Number of theses by autonomous community (2022)



Note: *The eight autonomous communities with the most theses are shown. Total for Spain: 11,259.*
Source: Doctoral Thesis Statistics (*Estadística de tesis doctorales*, ETD), Spanish Ministry of Science, Innovation and Universities

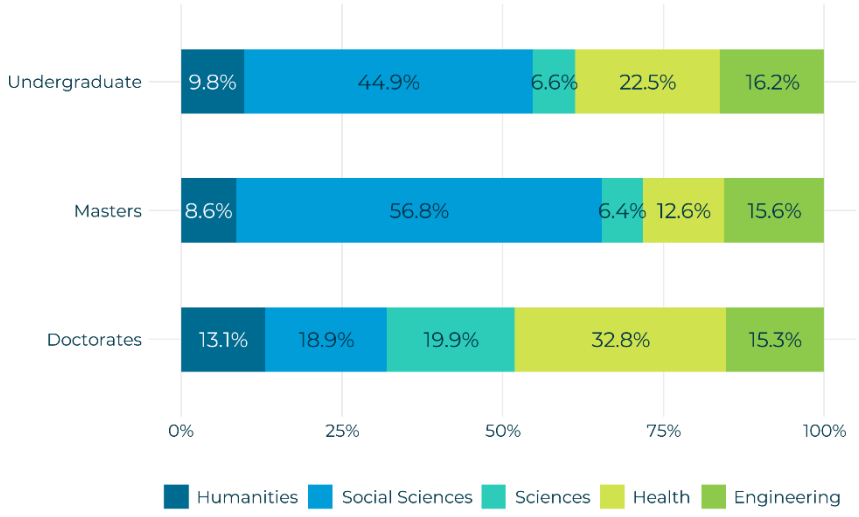
→ 1.2. PROFILE OF RECENT DOCTORAL GRADUATES

Field of knowledge

One out of three doctoral theses is in the field of Health, which has consolidated its position as the leading field of doctoral research

- The other theses are distributed relatively evenly among the other fields: 20% are in Sciences, 19% in Social Sciences, 15% in Engineering, and 13% in Humanities.
- The breakdown of doctoral theses by field differs significantly from that of bachelor's and master's degrees. At doctoral level, the proportion of Social Sciences falls considerably, while that of Sciences, Health and Humanities rises markedly, with their relative share almost doubling. In contrast, the proportion of the Engineering field remains fairly stable in relation to the other levels of education.

Figure 3. Breakdown of graduates by field of knowledge and educational level (academic years 2020-2021 and 2021-2022)



Source: UNEIX.

STEM

There is still work to be done in the Catalan HES when it comes to the importance of STEM, although the highest proportion of graduates in these fields is found in doctoral programmes.

- From a broader perspective, **analysing STEM fields** is key to understanding the system's ability to produce scientific and technological knowledge. In this regard, it is at doctoral level that these disciplines account for the greatest relative proportion within the education system as a whole, except in the case of Engineering, where the proportion is comparable to the figures for bachelor's and master's degree programmes. In this context, it is necessary to analyse the extent to which the system promotes continuity in Sciences and Engineering research, and which factors – such as opportunities outside academia – influence this situation.

- Catalonia has a slightly higher proportion of STEM graduates compared with Spain as a whole at all educational levels: 24% at bachelor's degree level, compared with 21%; 23% at master's degree level, compared with 17%; and 39% at doctoral level, compared with 37%. However, in an international comparison with the EU25, Catalonia shows very similar figures for bachelor's and master's degrees, but lags behind at doctoral level, with a difference of 5 percentage points compared with the European average.

Table 1. Percentage of STEM graduates by educational level

	Bachelor's degrees	Master's degrees	Doctoral degrees
Catalonia	24%	23%	39%
Spain	21%	17%	37%
EU25	24	24	44

Source: The data for Catalonia and Spain are taken from UNEIX for the 2024-2025 academic year, while the data for the EU25 are taken from the OECD report (OECD 2025, 242)

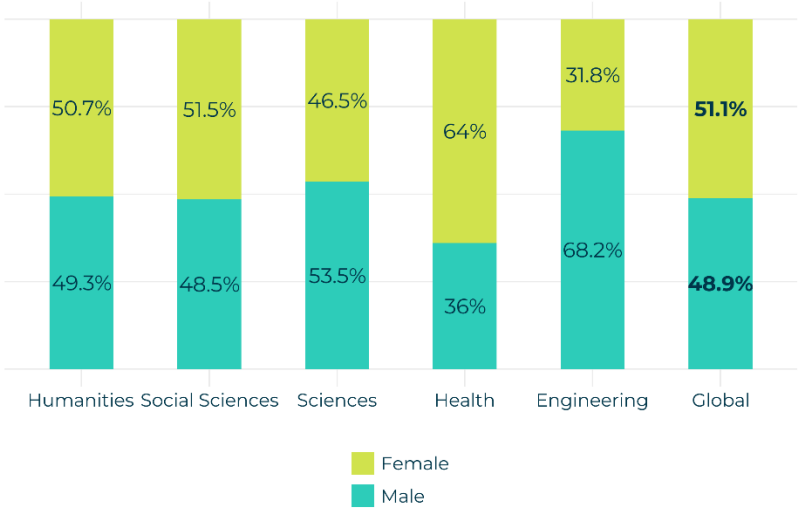
Gender

Half of doctoral degree holders are women, although they are under-represented in STEM fields, especially in Engineering

- Although they account for half of all doctoral degree holders in the Catalan HES, there are significant differences in the breakdown by field of study. Women are well represented in the Health field (accounting for 64% of doctoral degree holders), but under-represented in Sciences (45%) and, above all, in Engineering (31%).

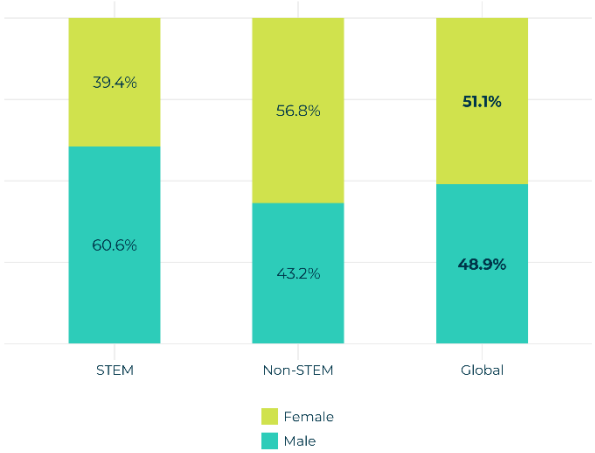
- It should be noted, however, that the proportion of **female doctoral students in STEM fields** is similar to the proportion of women in master's degree programmes, and higher than that of women in bachelor's degree programmes.

Figure 4. Doctoral theses defended by field and sex (academic years 2020-2021 and 2021-2022)



Source: UNEIX.

Figure 5. Doctoral theses defended in STEM and non-STEM fields, by sex (academic years 2020-2021 and 2021-2022)



Source: UNEIX.

→ 1.3. IS CATALONIA ATTRACTING INTERNATIONAL TALENT?

One third of doctoral graduates from Catalan universities are foreign nationals

- In recent years, the number of foreign nationals earning doctorates has remained relatively stable, at around 900 each year, accounting for approximately 35% of the total number of theses defended.
- The fields with the highest percentage of foreign students are Social Sciences and Engineering, where they account for around half of doctoral graduates.
- Most foreign-national doctoral degree holders are from Central America and South America.
- In Spain, this figure is slightly lower: 26.2% of theses are defended by foreign nationals (Ministerio de Ciencia, Innovación y Universidades 2026).

Figure 6. Trends in the doctoral graduate population at Catalan universities by nationality

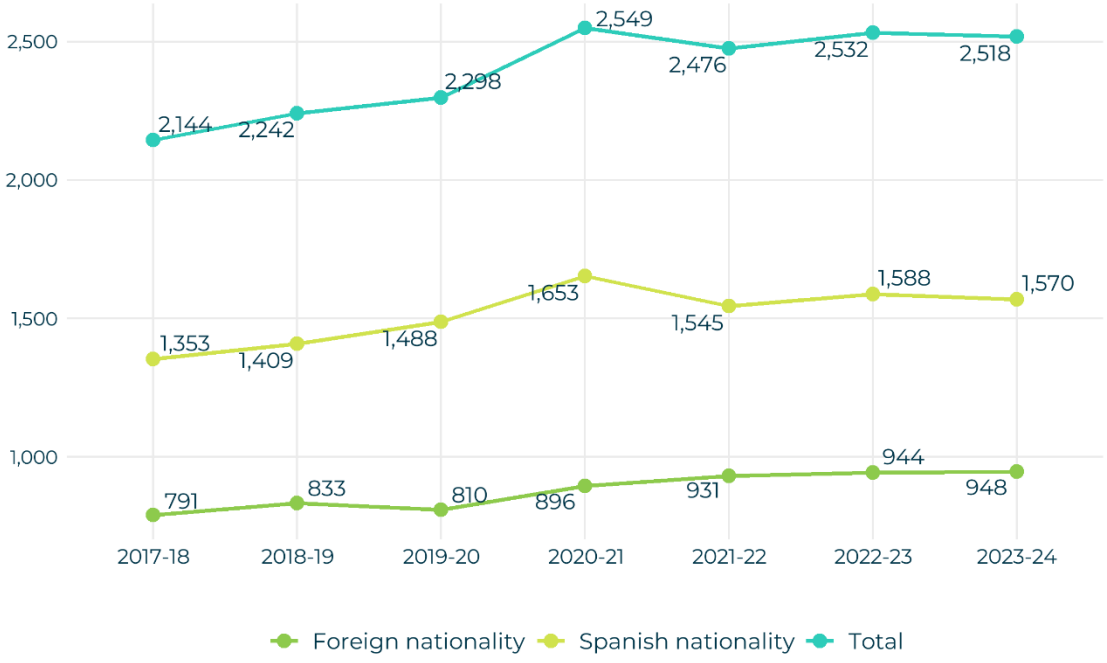
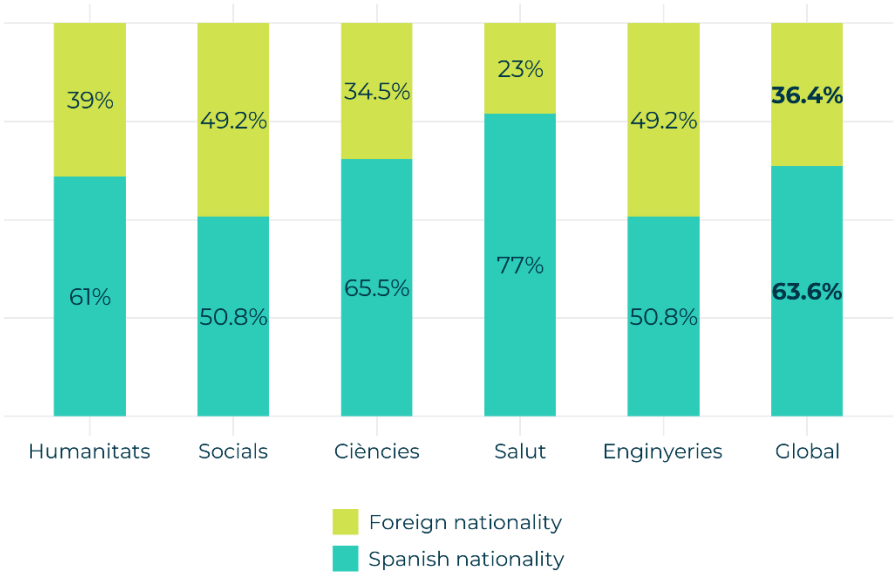
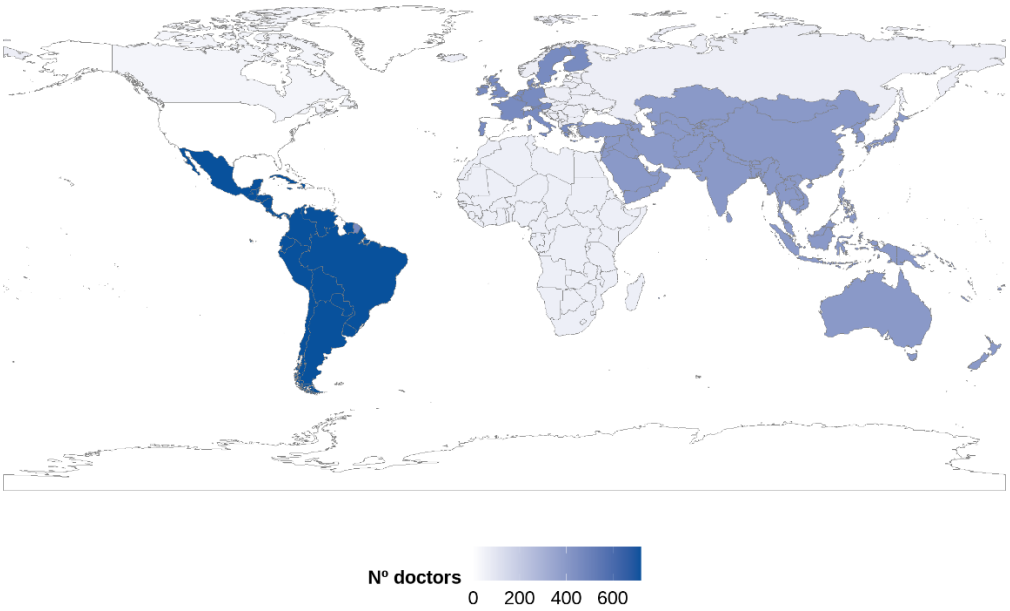


Figure 7. Doctoral theses defended by field and sex (academic years 2020-2021 and 2021-2022)



Source: UNEIX.

Figure 8. Continent of origin of foreign-national doctoral graduates (academic years 2020-2021 and 2021-2022)



Source: UNEIX.

CHAPTER 2. WHAT LABOUR MARKET CONTEXT ARE THEY ENTERING?

→ 2.1. ECONOMIC CONTEXT

Before analysing graduates' employment outcomes, it is useful to consider the economic context in which they are entering the job market. The graduating classes analysed in this edition joined a clearly recovering labour market: in 2025 and early 2026, the Catalan and Spanish economies saw sustained growth and achieved the best employment figures since the start of the 2008 financial crisis.

In Catalonia, the average unemployment rate for 2025 was 8.4% (around 357,000 unemployed people, according to the INE's Labour Force Survey[3]), down on the previous year, although the situation deteriorated slightly in the first quarter of 2026. The employed population exceeded 3.9 million people, a record high, and the average employment rate among the population aged 25 to 54 was 82.1% in 2025. The unemployment rate for under-25s, though still high, fell from 22.1% in 2024 to 19.1% in 2025.

In Spain as a whole, the unemployment rate fell below 10% for the first time since 2008 (9.9% in the fourth quarter of 2025). GDP growth has remained above the European average – around 2.9% in Spain in 2025, according to CaixaBank Research – mainly due to domestic demand driven by private consumption and investment.

This improvement, however, has been accompanied by inflation: after the peak in 2022 (around 8% annually), price increases have moderated to values close to 3% in 2025-2026, but the cumulative inflation over these years has eroded the purchasing power of incomes, including those of graduates. Overall, then, graduates are entering a more dynamic job market with less unemployment compared to previous editions of the study, a context that must be taken into account when interpreting the results presented below.

[3] Data taken from the website of the Statistical Institute of Catalonia.

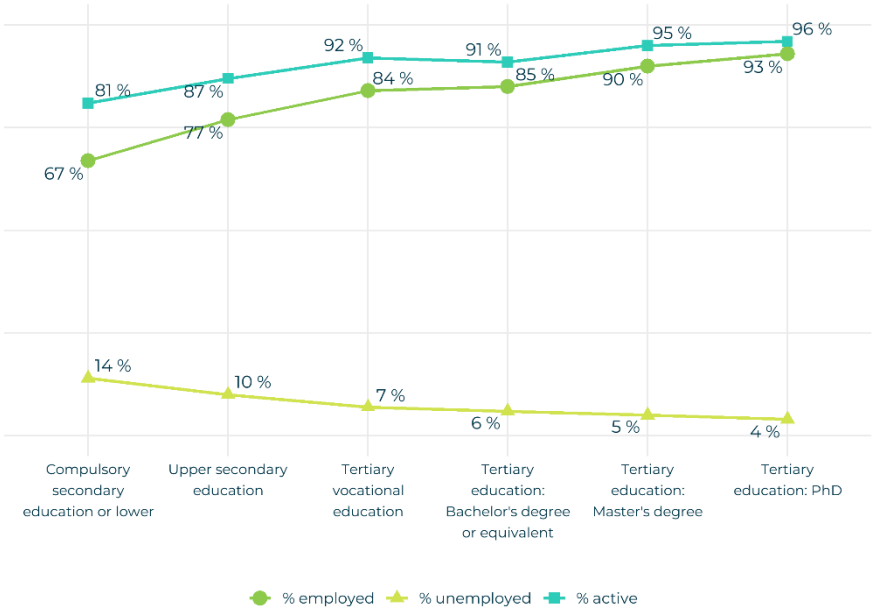
→ 2.2. PARTICIPATION IN THE LABOUR MARKET

The higher the educational level, the better the employment outcomes

- Holding a higher education degree (from vocational training or a university programme) clearly favours participation in the job market and employment; and, consequently, provides greater protection against unemployment. This finding, based on the Labour Force Survey data for Spain, is consistent with the theory of human capital, which holds that investment in education increases individuals' knowledge, skills and productivity, thereby enhancing their value for employers and improving opportunities for entering and remaining in the job market (OECD 2022).

- However, compared with most OECD and EU countries, Spain shows slightly lower employment levels among people with mid-level and high qualifications. The employment rate of people aged 25 to 64 with tertiary education is 84% in Spain, below the rates of 89% in the EU25 and 87% across the OECD. The difference is even more striking when compared with neighbouring countries such as France (87%) and, above all, Portugal (91%) (OCDE 2025, 99). This pattern is seen at the different levels of higher education (bachelor's, master's and doctoral degrees), suggesting that, despite the advantages associated with obtaining a higher education degree, the Spanish job market absorbs highly qualified human capital at a slightly lower rate than the benchmark European countries.

Figure 9. Percentage of individuals in the labour force, employed and unemployed, by educational level (population aged 25 to 44 years in Spain, Labour Force Survey for Q1 2026)



Note: each indicator is calculated in relation to the total population of each educational level. Source: National Statistics Institute (INE).

Table 2. Employment rate of people aged 25 to 64 by educational level, 2025.

	Below secondary level	Secondary level	Bachelor's degree	Master's degree	Doctoral degrees
Spain	62	74	83	87	91
OECD	52	78	87	89	93
EU25	57	79	86	90	94

Source: Original analysis based on the (OECD 2025) report.

CHAPTER 3. HOW ARE DOCTORAL GRADUATES JOINING THE LABOUR MARKET?

The main findings of this chapter are as follows:[4]

- Doctoral degree holders reach virtually full employment three years after graduating
- Doctoral degree holders are equally distributed across two distinct professional spheres: academic positions (universities and research centres) and non-academic positions (companies and other organisations).
- In academic positions, they carry out duties associated with doctoral degree holders, but their working conditions are poorer, with less stability and lower salaries.
- In contrast, while the majority of those in non-academic positions do not perform duties associated with doctoral degree holders, they enjoy greater job stability and higher salaries.
- The Catalan HES attracts and retains more international talent than it loses to brain drain: nearly half of international students stay to work in the country, while only a minority of local students move abroad.
- The gross salaries of doctoral degree holders have increased, but due to inflation, their purchasing power has been decreasing since 2020.
- Job satisfaction remains high, at around 8 out of 10, despite differences between academic and non-academic career paths in terms of job security, salary and job fit.

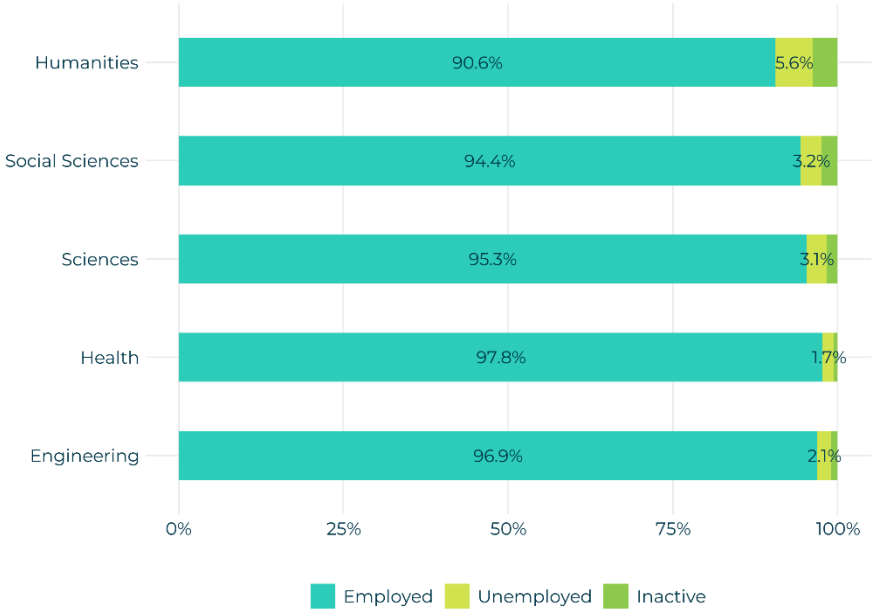
[4] The 2026 results are presented for the full sample obtained. When analysing trends over time, however, the data are limited to doctoral degree holders with Spanish nationality, as this is the only group that participated in the first editions of the survey. Since 2020, the study has also included doctoral degree holders of foreign nationality, allowing for a more comprehensive understanding of current job placement trends.

→ 3.1. EMPLOYMENT

Doctoral degree holders reach virtually full employment three years after graduating

- Practically all (96%) doctoral degree holders are working three years after completing their doctorate.
- The differences in employment rates between fields are minor: the figures range from 91% in Humanities to 97% in Engineering. The comparison between STEM and non-STEM areas confirms this high degree of homogeneity, with virtually equivalent employment rates.
- Employment rates for this group have remained very high throughout the period analysed, indicating that educational attainment provides strong protection against unemployment.
- The employment figures are similar to those observed in advanced economies, where the employment of doctoral degree holders ranges between 86% and 97% (Sundström, Laura et al. 2026).[5]

Figure 10. Percentages of employment, unemployment and labour market inactivity among doctoral degree holders by field (2026)



[5] Differences in job placement rates by field are similar in other countries. For example, the job placement rate in 2018 for French doctoral degree holders in Sciences was 93.7%, compared with 89.4% for holders of doctorates in Social Sciences (Ministère de l'Enseignement Supérieur, de la Recherche et de l'Espace 2022).

Figure 11. Percentages of employment, unemployment and labour market inactivity among doctoral degree holders by field (2026)

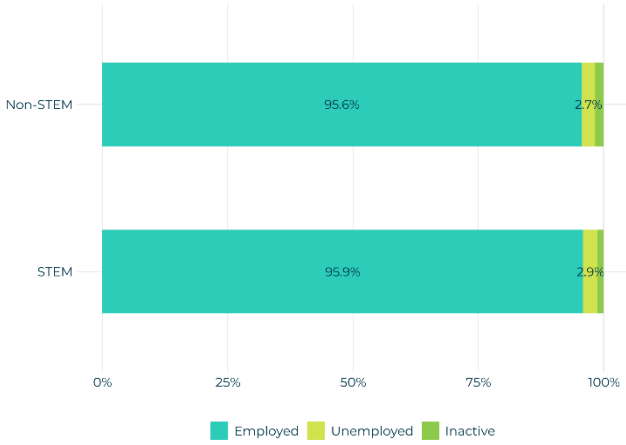
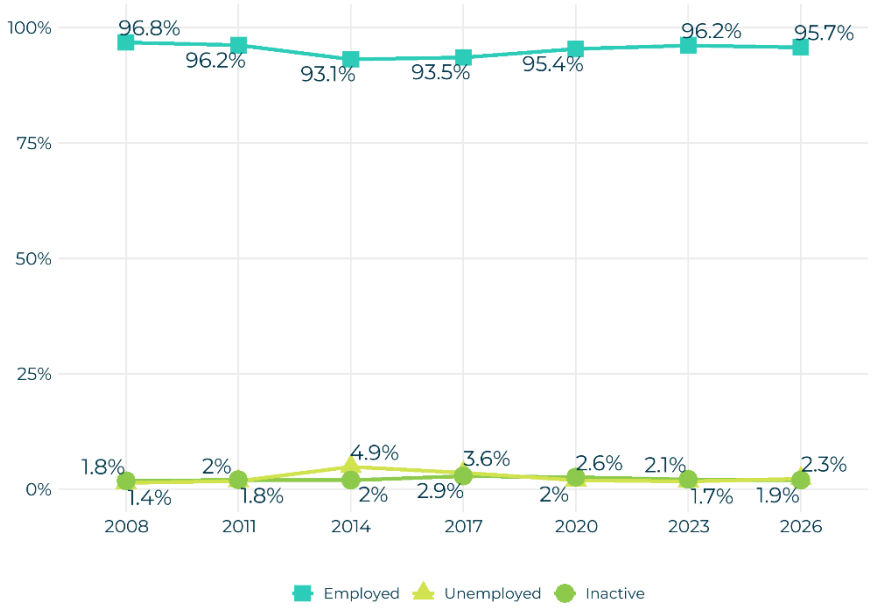


Figure 12. . Trends in the percentages of employment, unemployment and labour market inactivity of doctoral degree holders (only Spanish citizens)



→ 3.2. WORKPLACE

Academic vs non-academic positions

Doctoral graduates work in two clearly distinct spheres: academic and non-academic careers

- Companies employ half of doctoral degree holders, while universities (32%) and research centres (18%) share the other half.
- These percentages vary depending on the field of doctoral degree: for example, universities are the main employers in the fields of Humanities and Social Sciences (48% and 52% respectively). In contrast, in Sciences, Health and Engineering, companies are the employers that absorb the majority of doctoral degree holders three years after graduation.
- This split among doctoral degree holders between academic and non-academic careers is not unique to the Catalan HES, as there is a wealth of literature indicating that an increasing number of doctoral degree holders are entering non-academic careers (ESF 2018; OECD 2023; Yang and Fumasoli 2024). Furthermore, it has also been found that they are more likely to take up non-academic positions in the fields of STEM and Health (Skakni et al. 2026)

Figure 13. Employer (2026)

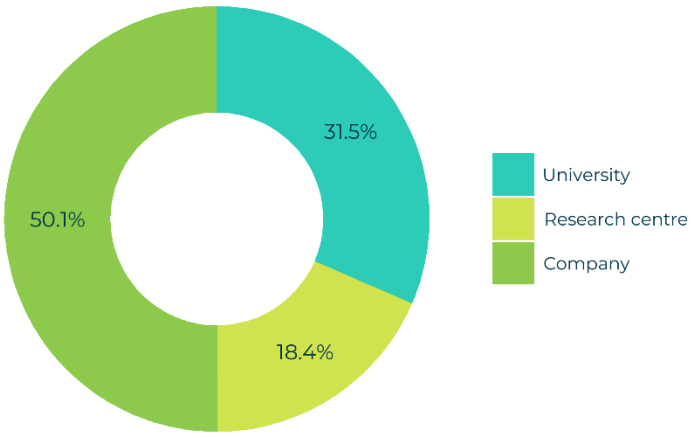
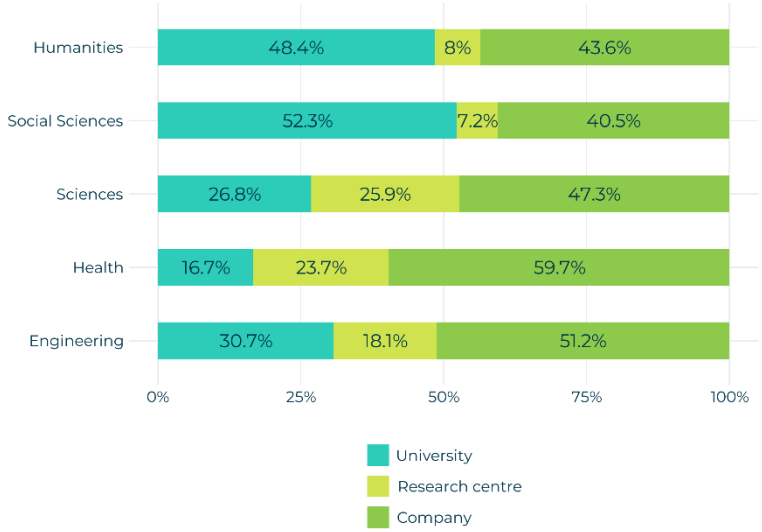


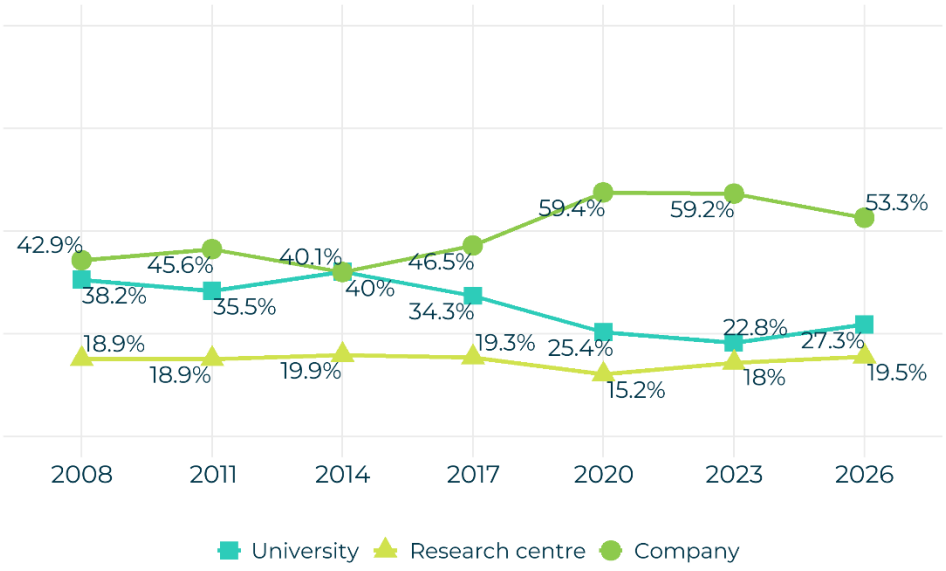
Figure 14. Employer by field of study (2026)



Although companies have been the main employer of doctoral degree holders in recent years, universities' capacity for recruitment has increased by 5 percentage points in the last three years

- For the first time since 2014, the percentage of Spanish nationals with doctoral degrees working at universities has grown.
- The CYD Report (Fundación CYD 2025) notes that Spain has one of the oldest academic workforces in Europe: nearly half of teaching and research staff (49.6%) are 50 or older, compared with the EU average of 38.6%. Moreover, since 2015 Spain has had the fourth-highest rate of ageing among university teaching staff. This could explain universities' capacity to attract young talent.

Figure 15. Trends in the percentage of doctoral degree holders by type of employer (only Spanish citizens)



Employment sector: public or private

The public sector employs half of recent doctoral graduates, although public employment is more common in academic positions

- By field of study, public-sector employment stands at 64.5% for those with doctorates in Humanities – where it peaks – and drops to 45% in Engineering.
- However, if the analysis focuses solely on those working in non-academic roles, the private sector emerges as the dominant employer across all fields of study, particularly in Sciences and Engineering.
- Although it remains predominant, the relative share of the public sector has been on a downward trend since the first edition of the study, falling by a total of 11 percentage points since 2008.

Figure 16. Employment in the public or private sector by field (2026)

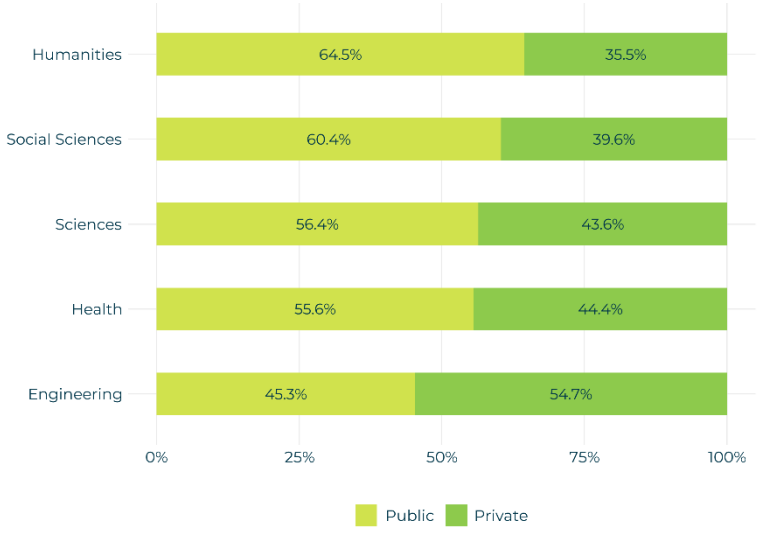


Figure 17. Employment in the public or private sector by field of study, only for doctoral degree holders working for companies (2026)

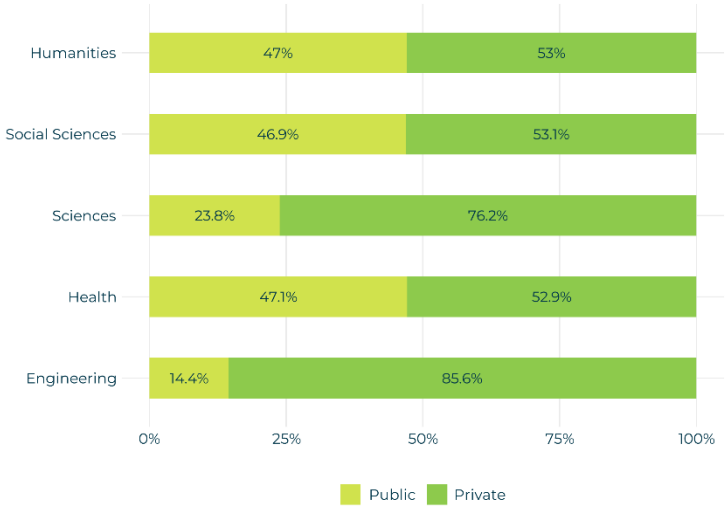


Figure 18. Trends in employment by sector (public or private) (only Spanish citizens)

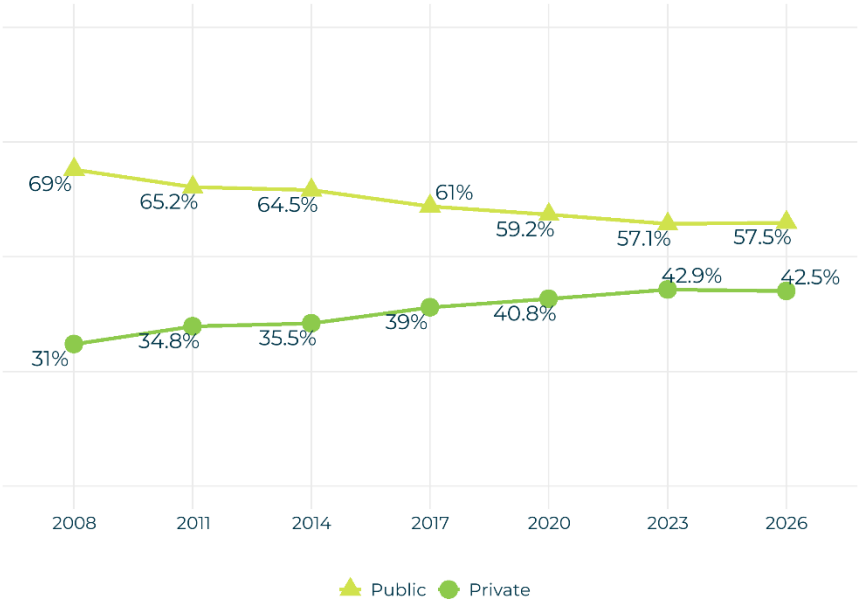
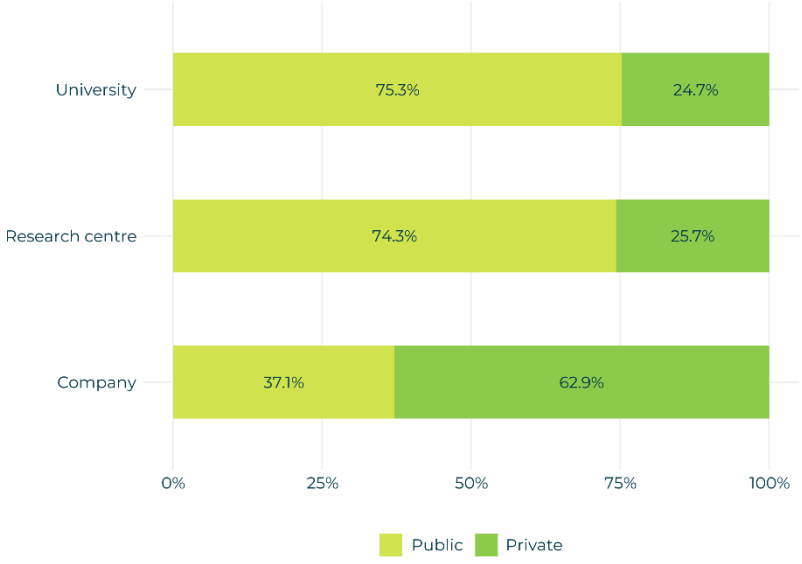


Figure 19. Employer by sector (public or private) (2026)



Economic sector of employment

Doctoral degree holders are concentrated in a small number of economic sectors, although their distribution varies significantly depending on whether they hold academic or non-academic positions

- On the one hand, those holding academic posts (at universities or research centres) work exclusively in the **Education, Culture and Research** sector.
- On the other hand, those in non-academic positions are spread across various sectors, closely linked to their field of study. Specifically, graduates in **STEM** fields (roughly defined as the sum of Sciences and Engineering) mainly work in the **Industrial** sector. **Humanities** graduates are mainly concentrated in the **Education, Culture and Research** sector, probably in non-university education institutions. Those who earned their doctorate in **Social Sciences** are mainly distributed between the **Education, Culture and Research** and **Public Administration** sectors. Finally, those with doctorates in the **Health** field are mainly employed in the **Health and Social Care** sector, primarily in hospitals and other medical facilities.

Table 3. Economic sector associated with the employment of doctoral degree holders working for companies (2026)

	Humanities	Social Sciences	Sciences	Health	Engineering	Global
Production of raw materials and energy		2.3%	6.1%	0.5%	7.4%	3%
Industry	4.4%	2.3%	30.2%	10.1%	28%	15.3%
Construction	1.5%	0.4%	0.6%		6.2%	1.3%
Consumer Services	0.7%	3.5%	3%	1.3%	4.1%	2.4%
Communication Technologies	5.1%	1.5%	4%	1.1%	19.3%	5.1%
Information and communication	6.6%	4.6%	3.4%	1.3%	6.2%	3.5%
Financial institutions, insurance, real estate	1.5%	5.8%	1.8%	0.7%	1.6%	2%
Business services	6.6%	8.8%	7.3%	3.1%	7%	5.8%
Public administration	14.7%	26.9%	7.3%	3.9%	4.5%	9.4%
Education, culture and research	58.1%	37.3%	15.2%	8.6%	7.8%	18.9%
Health and social care	0.7%	6.5%	21%	69.3%	7.8%	33.5%

→ 3.3. WORKING CONDITIONS

Job suitability

Six out of ten doctoral degree holders surveyed perform functions at work that are suited to their level of education

- The analysis shows that 60% of doctoral degree holders surveyed perform duties aligned with their level of education, while 40% feel that they are overqualified for the work they do. Nevertheless, it should be noted that practically all of them occupy jobs that require at least a university education.

- These results contrast with the *Career Tracking Survey of Doctorate Holders* (ESF 2017), which indicates that approximately 80% of employed doctoral degree holders are involved in research, even outside the strictly academic field. By comparison, the data from the Catalan HES suggest a lower prevalence of research work, especially outside universities, which points to less intensive use of skills associated with doctoral degrees.

- The match between doctoral education and the functions performed at work varies according to the field of study. It is highest among doctoral degree holders in the field of Social Sciences, and lowest in the field of Health. The comparison between STEM and non-STEM fields shows that, overall, doctoral graduates in STEM disciplines achieve better job suitability.

- Although the trend in the percentage of individuals performing work aligned with their doctorate was negative, in 2026 it rose by 5 percentage points compared to 2023. This probably reflects the fact that more doctoral degree holders are taking up positions at universities, where most of them perform doctorate-specific work.

Figure 20. Job suitability (2026)

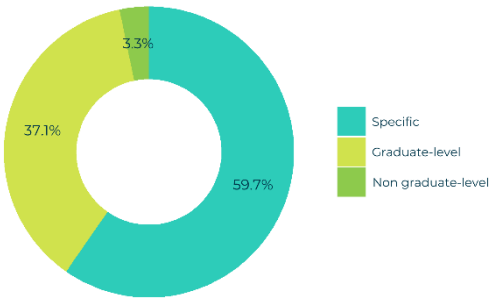


Figure 21. Job suitability for doctoral degree holders by field of study (2026)

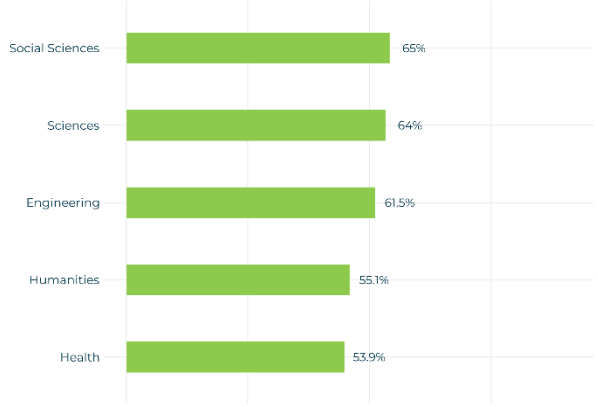


Figure 22. . Job suitability for doctoral degree holders depending on whether the doctorate is in a STEM field (2026)

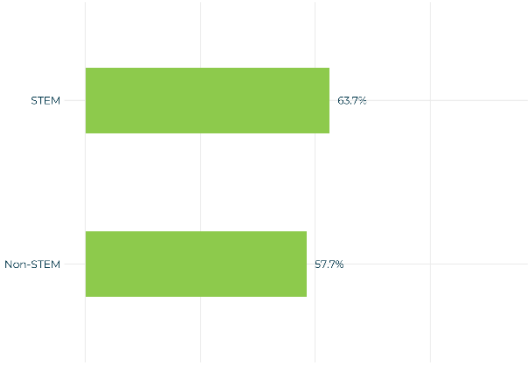
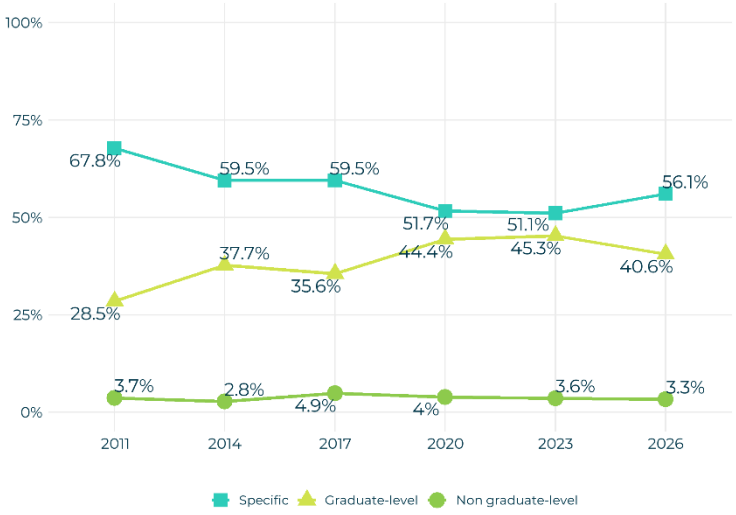


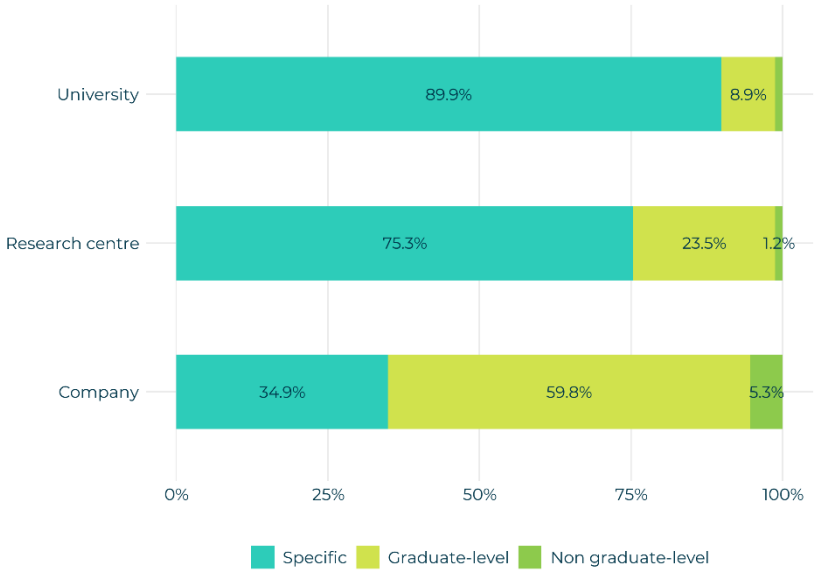
Figure 23. Trends in job suitability (only Spanish citizens)



Although recent doctoral graduates are concentrated in non-academic positions, only 1 out of 3 perform doctorate-level functions there

- Companies are the main employers of recent doctoral graduates, but only a third of those employed there perform doctorate-level functions. In contrast, in academia and at research centres, the vast majority do perform functions aligned with their education (around 90% at universities and 75% at research centres).
- This result is consistent with recent literature on Spain, which shows that doctoral degree holders may carry out work related to their doctorate outside academia, but that their expertise often remains underutilised (Garcia-Morante et al. 2025b).
- However, it highlights the difference with the pattern observed at European level, where a significant proportion of doctoral degree holders working outside universities remain involved in research activities (ESF 2017).

Figure 24. Doctorate-level functions by type of employer (2026)

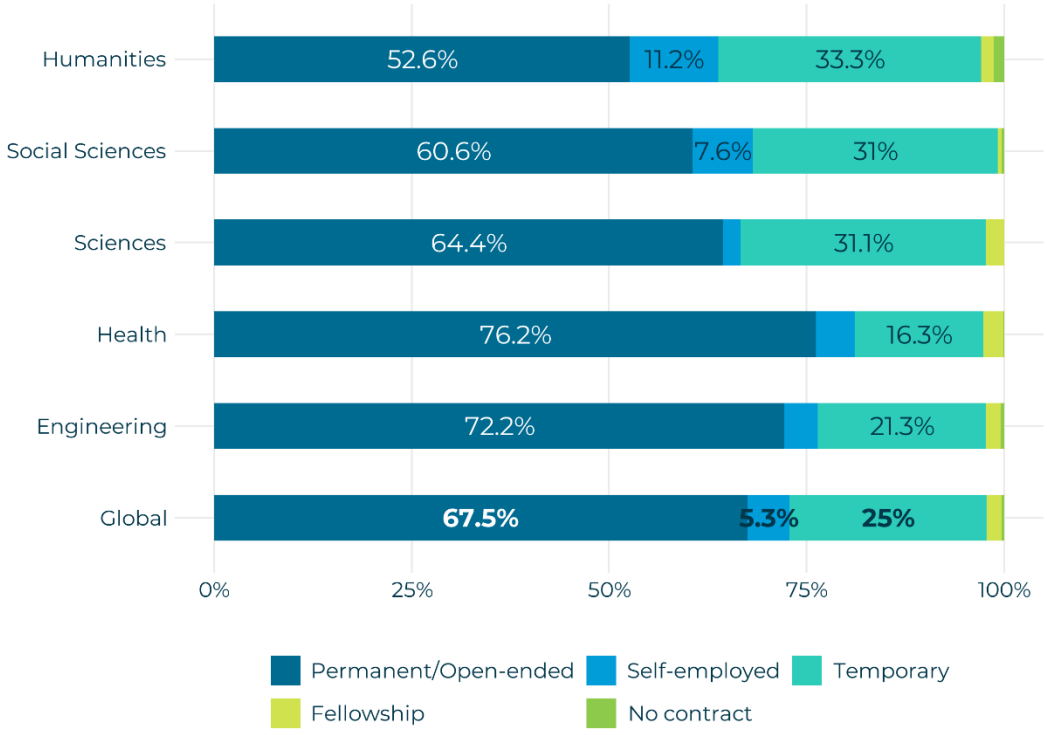


Contract types

68% of doctoral degree holders enjoy job stability three years after graduating

- The fields with the greatest job stability are Engineering and Health, with rates of 72% and 76%, respectively.

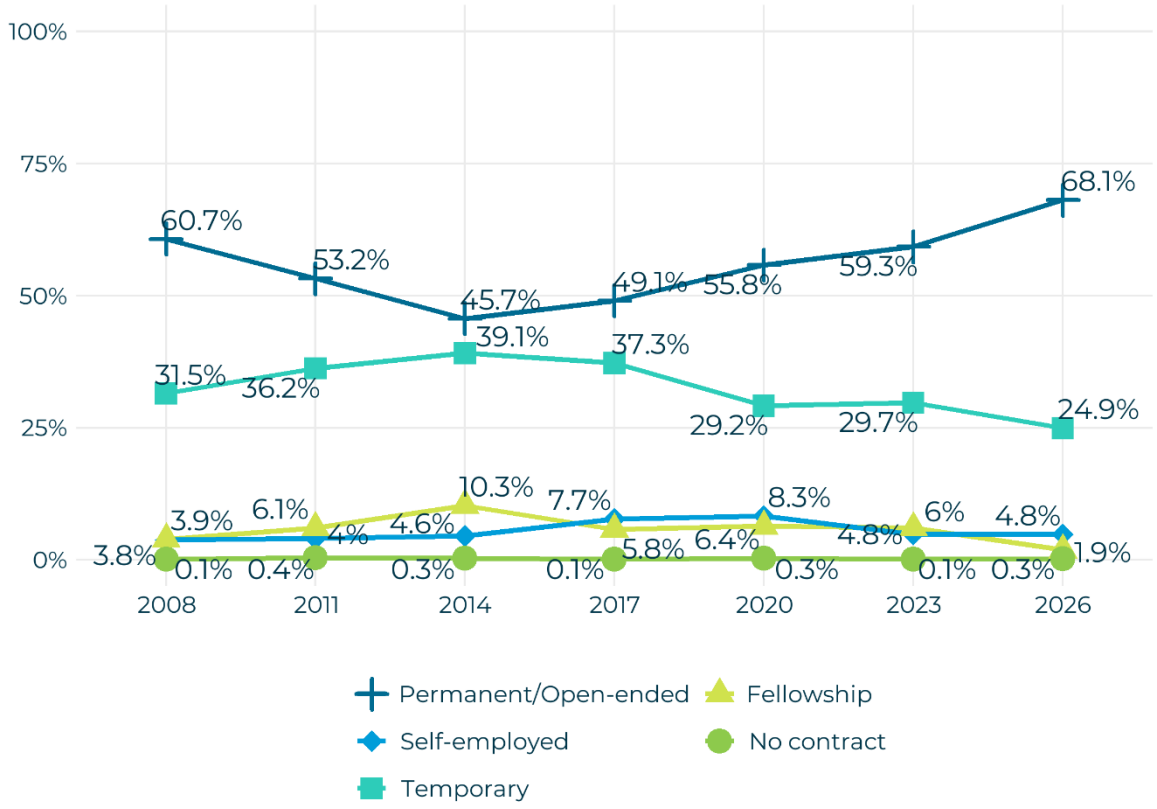
Figure 25. Type of contract by field of study (2026)



Job stability skyrockets, increasing by more than 20 points since 2014

- Meanwhile, the relative proportion of temporary contracts has fallen, albeit at a slower rate.
- Furthermore, the percentage of doctoral degree holders on self-employed contracts remains virtually non-existent.

Figure 26. Trends in contract types (only Spanish citizens)



Unprecedented increase in permanent contracts in the public sector over the last three years

- The process of stabilising employment in the public sector, regulated primarily by Law 20/2021 of 28 December on urgent measures to reduce temporary employment in the public sector, has had a major impact on job stability, which has increased by 14 percentage points over the last three years for recent doctoral graduates.
- Consequently, it has led to a reduction in the number of temporary employment contracts for doctoral degree holders working in the public sector.

Figure 27. Trends in permanent contracts by employment sector (only Spanish citizens)

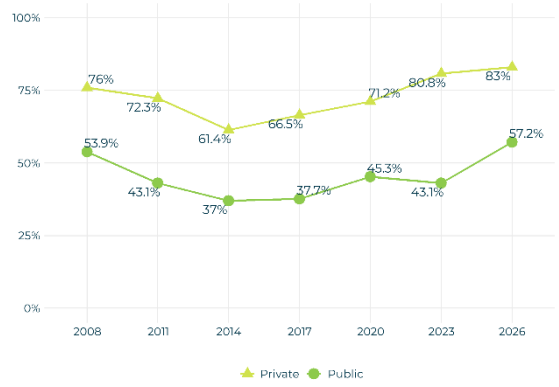


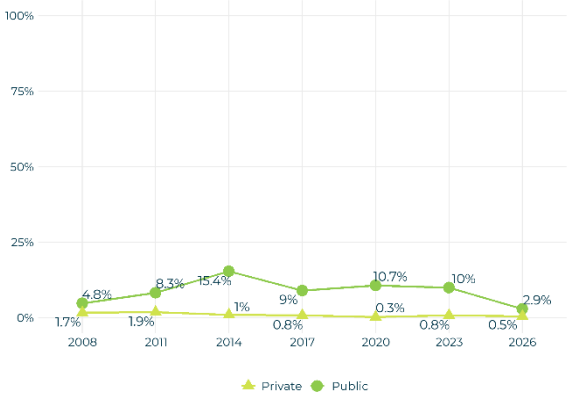
Figure 28. Trends in temporary contracts by employment sector (only Spanish citizens)



Figure 29. Trends in self-employed contracts by employment sector (only Spanish citizens)



Figure 30. Trends in internship contracts by employment sector (only Spanish citizens)



Doctoral degree holders working in non-academic roles enjoy the greatest job stability three years after graduation: 8 out of 10 have a permanent contract

- The data from 2026 show that 82% of doctoral degree holders working for companies have a permanent contract, compared to 61% and 48%, respectively, at research centres and universities.
- This pattern is consistent with the findings of the European Science Foundation report (ESF, 2017), which identifies a significant gap between the academic and non-academic sectors regarding permanent employment: only half of doctoral degree holders working at universities have a stable post, compared with much higher percentages in industry. According to the report, this difference highlights a persistent structural problem within academia and is also reflected in lower levels of satisfaction among university staff regarding job security.
- It should be noted, however, that within the Catalan HES, job stability has increased significantly both at universities and at research centres in the last three years, with an increase of 18 percentage points in both cases.

Figure 31. Type of contract by type of employer (2026)

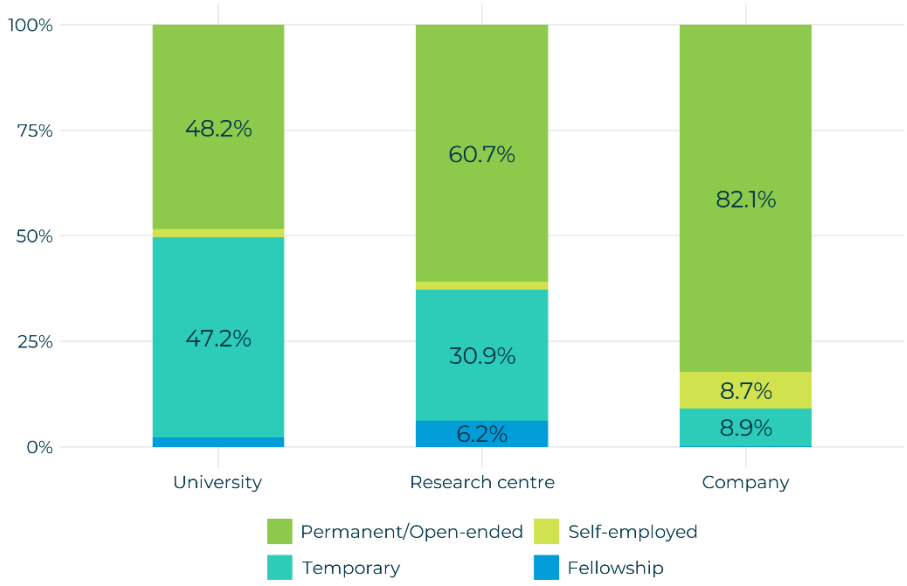


Figure 32. Trends in permanent contracts by type of employer (2023-2026)



Full-time and part-time employment

Nine out of ten doctoral degree holders work full-time

- This figure is observed in all fields of study except Humanities, where the percentage of full-time work is 76%.
- The main reason for part-time work (for 60% of those employed in these positions) is that they have not been able to find a full-time job, despite wanting one.

Figure 33. Full-time and part-time employment (2026)

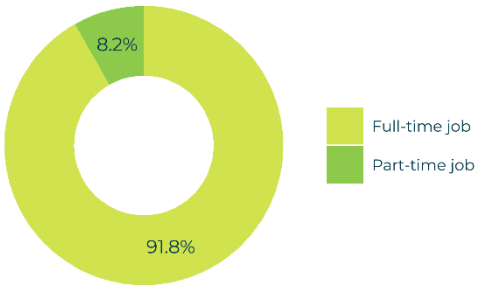


Figure 34. Full-time employment by field of study (2026)

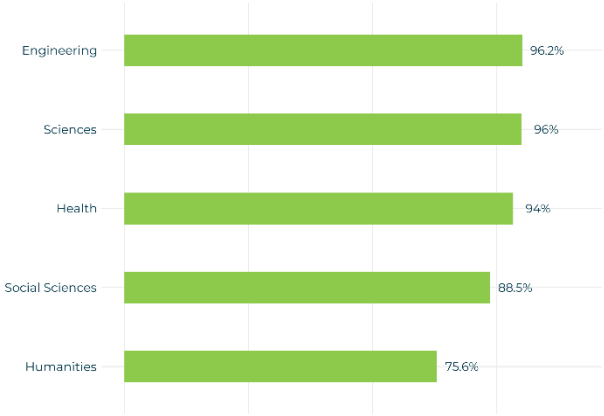
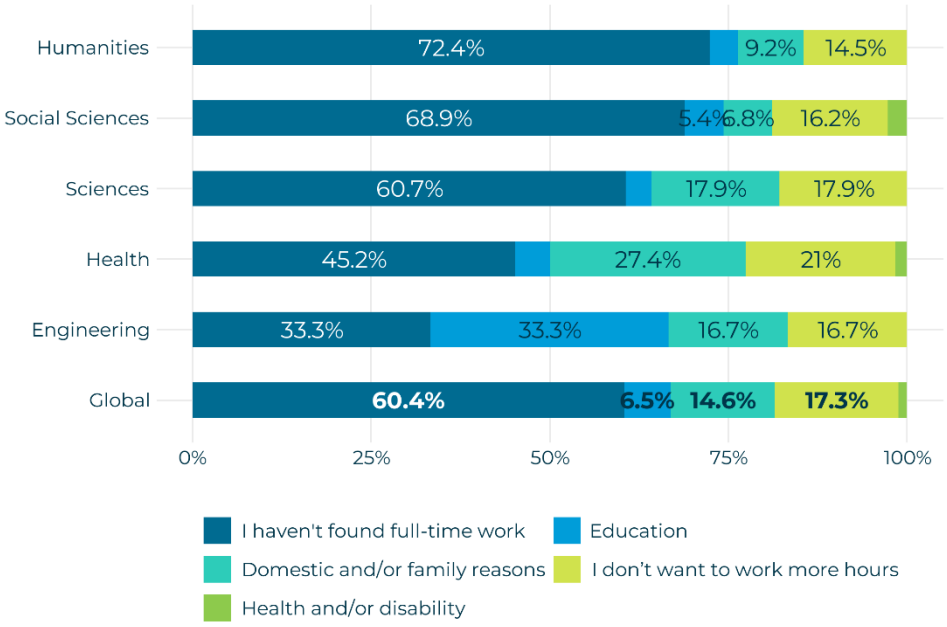


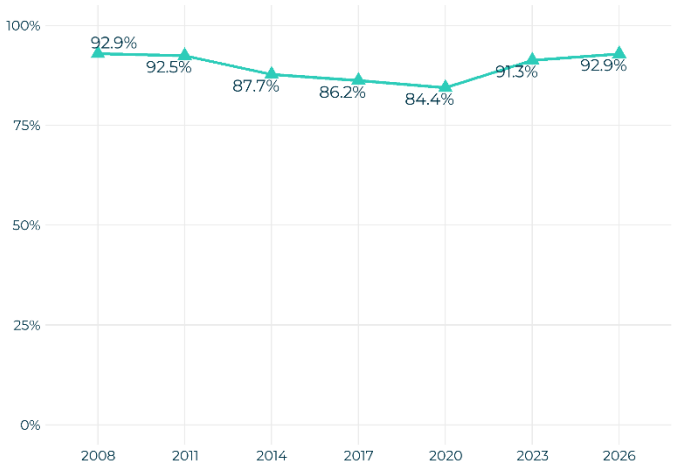
Figure 35. Main reasons for working part-time (2026)



Improvement in full-time employment

- Until 2020, there was a downward trend in full-time employment among Spanish nationals holding doctoral degrees, but these figures have been steadily improving in recent years (by 8 percentage points).

Figure 36. Trends in full-time employment (only Spanish citizens)



Salary

The average gross monthly salary for doctoral degree holders is €3,325 three years after graduation

- The highest salaries are found among doctoral degree holders working full-time in the fields of Engineering and Health.
- Doctoral degree holders who perform functions specific to their degree earn more if they work at companies; however, those working at universities earn less than those who perform only university-level functions at the same institutions. This is likely due to lower salaries at the start of academic careers.

Figure 37. Average gross monthly earnings (only full-time employees working in Spain) by field of study (2026)

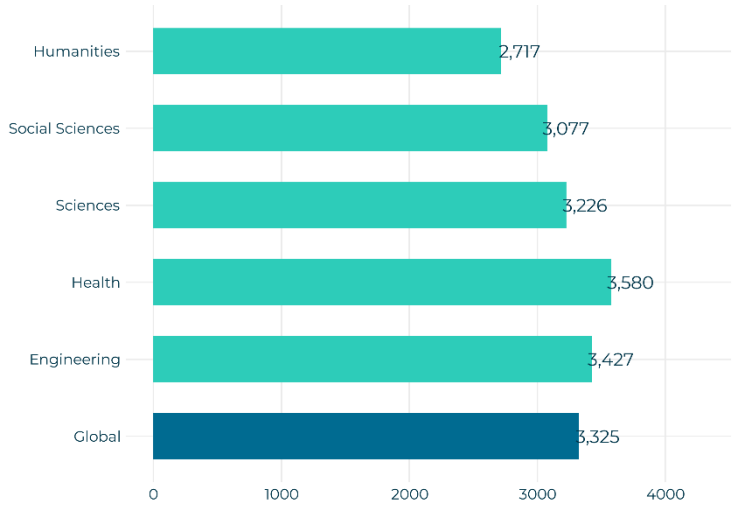
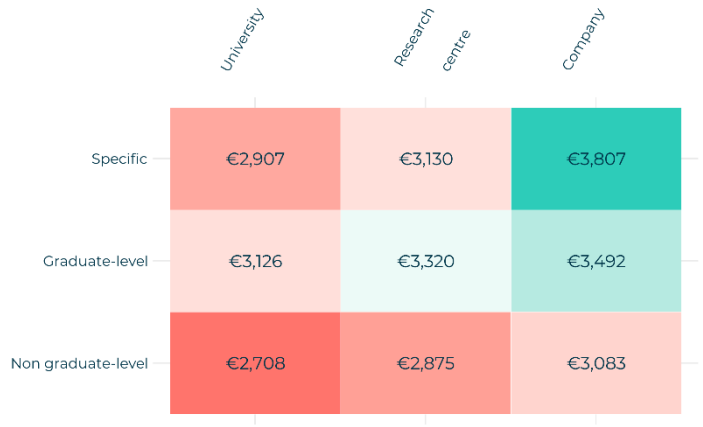


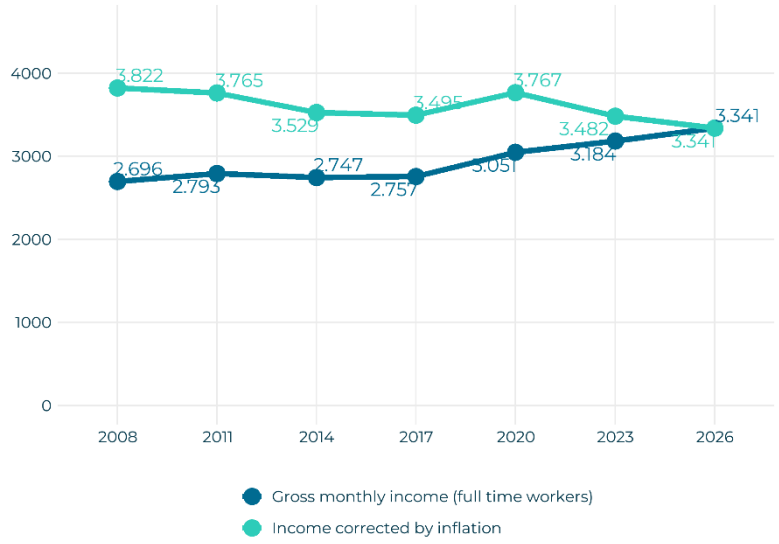
Figure 38. Average gross monthly earnings (only full-time employees working in Spain) by type of work and employer (2026)



Although gross salaries have risen over the period, purchasing power has been declining since 2020

- Specifically, since 2020, the purchasing power of doctoral degree holders with Spanish nationality working full-time in the country has decreased by more than €400.
- When broken down by field of study, it can be seen that earnings in the Humanities are significantly lower than in other fields. In contrast, Health is the field where earnings are highest.

Figure 39. Trends in average gross monthly earnings and inflation-adjusted equivalent earnings[6] (only doctoral degree holders with Spanish nationality working full-time in Spain)

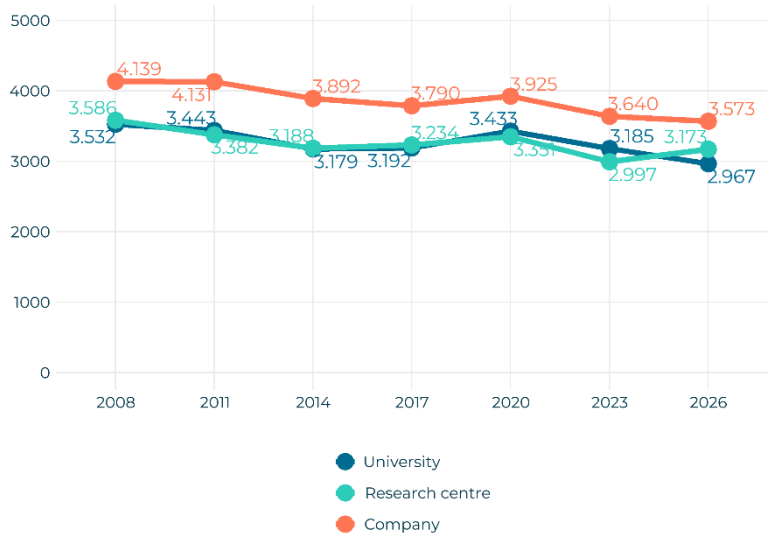


Non-academic positions are better paid than academic positions

- Doctoral degree holders who work full-time for companies in Spain earn more than those who work at research centres or universities.
- Moreover, this loss of purchasing power has been more acutely felt by those working at universities.

[6] Inflation-adjusted earnings allow for a comparison of purchasing power over time, taking into account changes in the average cost of living. Specifically, the figure shown is the equivalent average income assuming the cost of living in 2026. The calculation uses the Consumer Price Index (CPI) published by the National Statistics Institute in January of each year analysed (base year 2021, accessed in April 2026). For 2026, however, the CPI for December 2025 was used, as the INE updated the base of the index from 2021 to 2025 with the January 2026 publication. This decision ensures that the entire series remains comparable, using the same calculation base. For each year x, the following formula is applied: inflation-adjusted earnings = earnings observed / index for year x × index for 2026.

Figure 40. Trends in average gross monthly earnings adjusted for inflation[7] (only Spanish citizens working full-time in Spain)



[7] Inflation-adjusted earnings allow for a comparison of purchasing power over time, taking into account changes in the average cost of living. Specifically, the figure shown is the equivalent average income assuming the cost of living in 2026. The calculation uses the Consumer Price Index (CPI) published by the National Statistics Institute in January of each year analysed (base year 2021, accessed in April 2026). For 2026, however, the CPI for December 2025 was used, as the INE updated the base of the index from 2021 to 2025 with the January 2026 publication. This decision ensures that the entire series remains comparable, using the same calculation base. For each year x, the following formula is applied: inflation-adjusted earnings = earnings observed / index for year x × index for 2026.

Multiple employment

Moreover, 1 out of 4 hold more than one job

- Multiple employment is more prevalent in the Humanities and Social Sciences than in other fields of study.
- Analysis by educational sub-field reveals significant differences within each field of study. In Social Intervention, one out of four doctoral graduates has three or more jobs. In Psychology and Therapy, 40% have two or more jobs, and in Architecture, Construction and Civil Engineering the percentage is 23%, approximately double the figures seen in other engineering fields.

Figure 41. Multiple employment by field of study (2026)

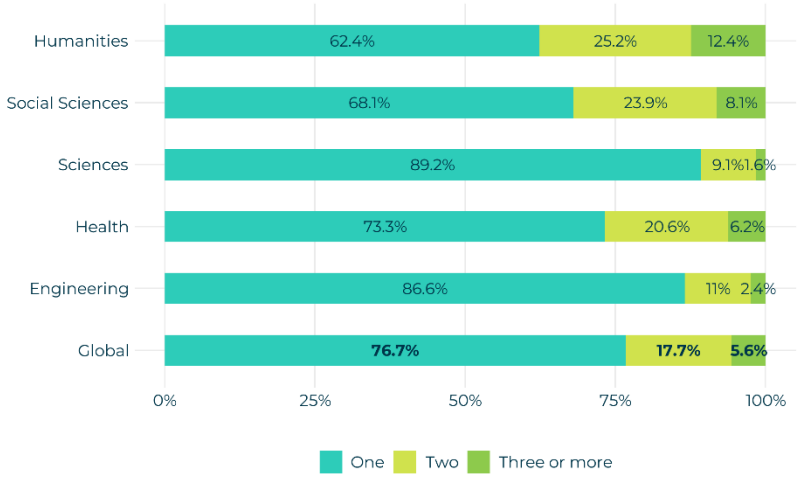
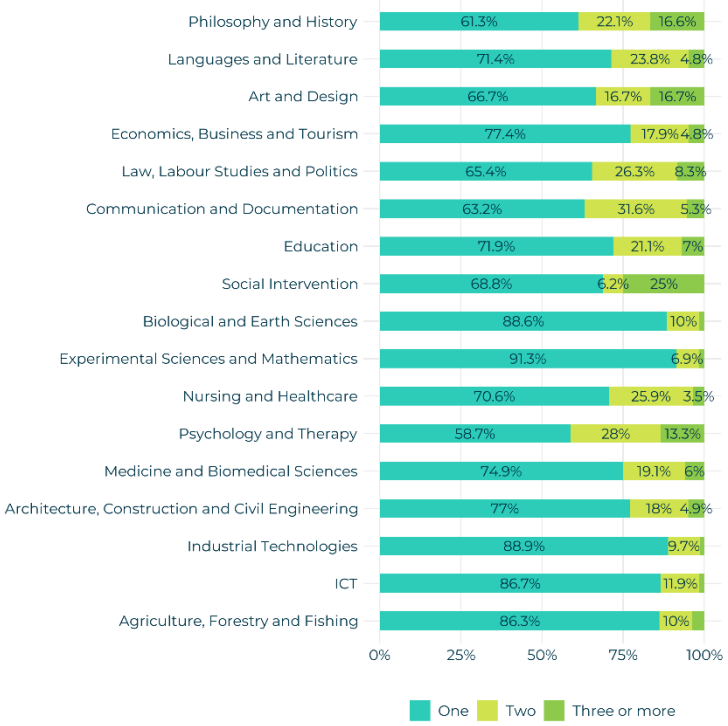


Figure 42. Multiple employment by sub-field of study (2026)



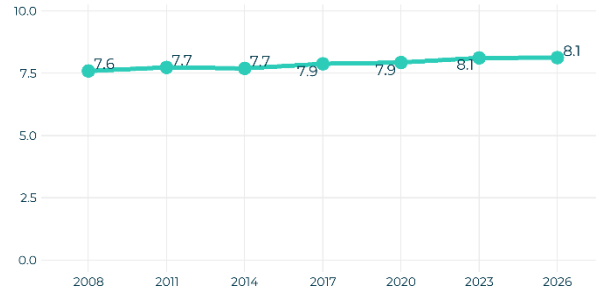
→ 3.4. JOB SATISFACTION

Job satisfaction

Job satisfaction among doctoral degree holders stands at around 8 out of 10, regardless of where they work or their field of study

- The trend in overall job satisfaction has been steady and slightly positive, remaining at levels of around 8.
- The ratings are consistent across all fields of study and regardless of where they work, which is significant given that those in academic careers, despite being engaged in work associated with doctoral degree holders, face job insecurity and lower salaries, while those in non-academic careers enjoy job security and higher salaries, but their work is less aligned with their level of education.
- Other studies also indicate that careers in academia are often less attractive in terms of job security, pay and work-life balance. In this context, it has been observed that a significant proportion of researchers are considering a career shift to non-academic positions, while the opposite trend is less frequent (ESF 2018).

Figure 43. Trends in overall job satisfaction (scale of 0 to 10; only Spanish citizens)



Note: prior to 2023, responses were collected on a scale of 1 to 7; they have been converted to a scale of 0 to 10 for comparison purposes.

Figure 44. Overall job satisfaction (scale of 0 to 10) by field of study (2026)

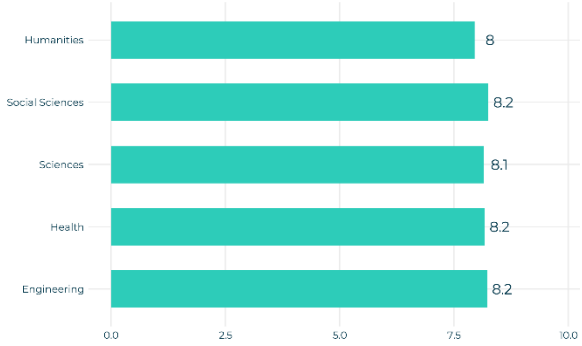
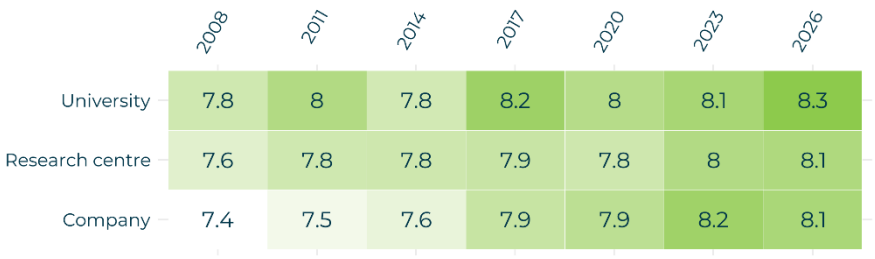


Figure 45. Trends in job satisfaction by employer (scale of 0 to 10; only Spanish citizens)



Note: prior to 2023, responses were collected on a scale of 1 to 7; they have been converted to a scale of 0 to 10 for comparison purposes.

→ 3.5. LEADERSHIP AT WORK

Supervisory responsibilities

Almost half of doctoral degree holders have supervisory responsibilities at work

- According to the results for 2026, 9.5% hold executive or management positions, 36% are middle managers, and the rest do not have any supervisory responsibilities.
- By field of study, the Social Sciences have the highest percentage of people in executive or management roles (18%). Middle managers are most prevalent in the fields of Sciences, Health and Engineering (between 37% and 45%). In contrast, Humanities is the field with the lowest percentage of doctoral degree holders in supervisory roles. Within STEM fields, there are fewer executive roles, but more middle managers (9 percentage points more than doctoral degree holders in non-STEM fields).

Figure 46. Supervisory responsibilities by field of study (2026)

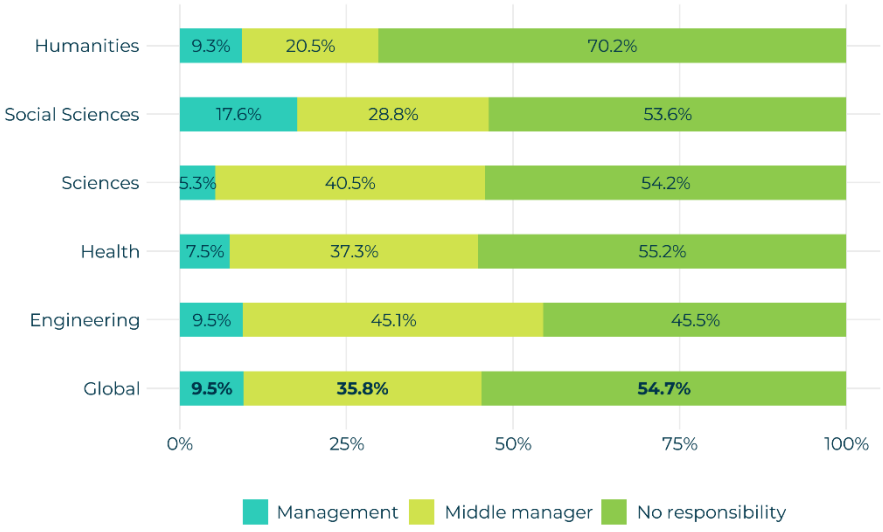
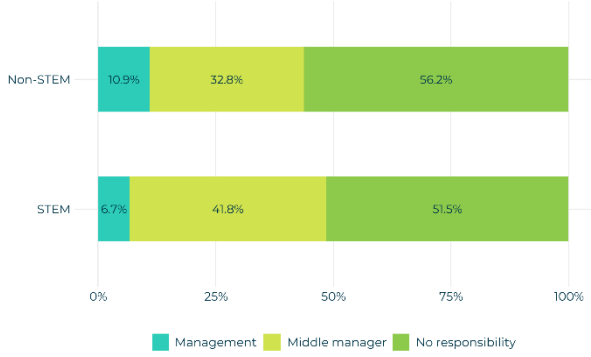


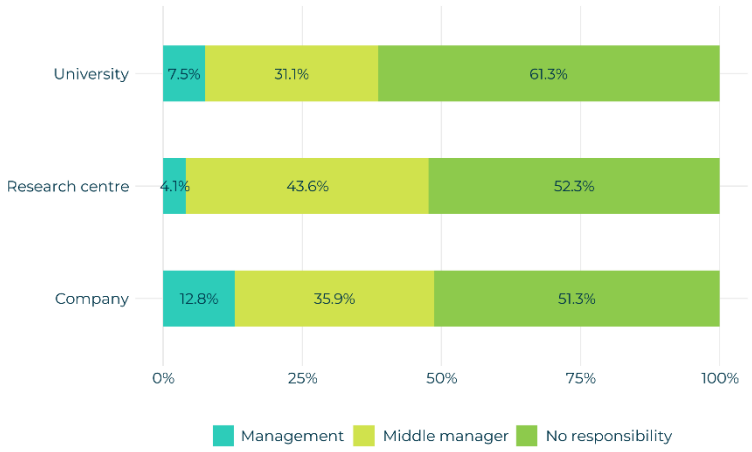
Figure 47. Supervisory responsibilities depending on whether the field is STEM or non-STEM (2026)



Doctoral degree holders who pursue careers outside the academic sphere are more likely to hold positions of responsibility.

- Executive roles are more common at companies than at universities or research centres. Specifically, they represent 13% of doctoral degree holders working for companies, while at universities this percentage stands at 7.4%, and at research centres it is even lower.

Figure 48. Supervisory responsibilities by employer (2026)

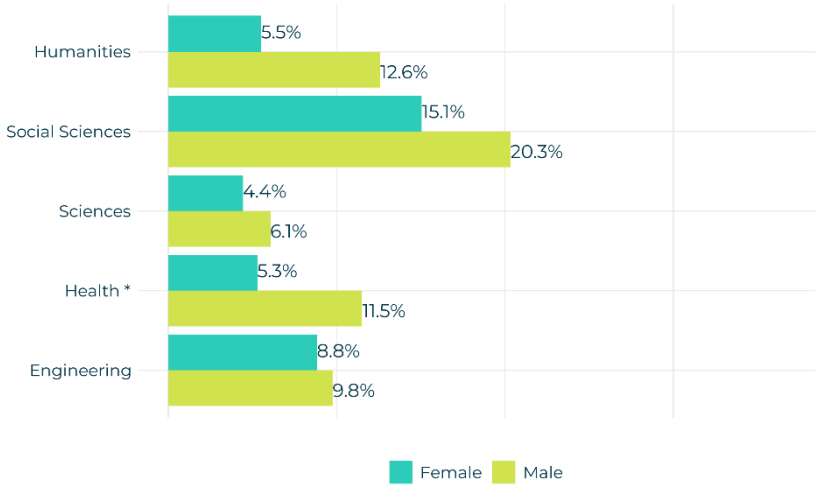


Gender differences are observed in access to positions of responsibility, with a higher number of men than women.

- Among doctoral degree holders in all fields of study, the percentage of men holding these positions is higher, although the difference is only statistically significant in the field of Health.

- Main et al. (2022) analyses the leadership roles of women with doctorates in STEM areas and points out that the incorporation of management and leadership skills during doctoral education, as well as access to professional development programmes in the early stages of their careers, can facilitate access to positions of responsibility. These findings suggest that preparing doctoral students to take on leadership roles is a growing priority for doctoral programmes and for organisations that recruit doctoral talent.

Figure 49. Executive or management positions by field of study and sex (2026)



Note: Fields marked with an asterisk show statistically significant differences according to the chi-squared test ($p < 0.05$).

→ 3.6. TALENT RETENTION AND MOBILITY

Labour mobility

Approximately 1 out of 5 individuals who earned a doctorate in Catalonia is working abroad three years after graduating.

- The type of employer also differs depending on location: doctoral graduates working outside Spain mainly hold academic positions, especially at universities (49%).
- In contrast, those working in Spain mainly hold non-academic roles (54%), and 27% are employed by universities.

Figure 50. Geographical location of jobs (2026)

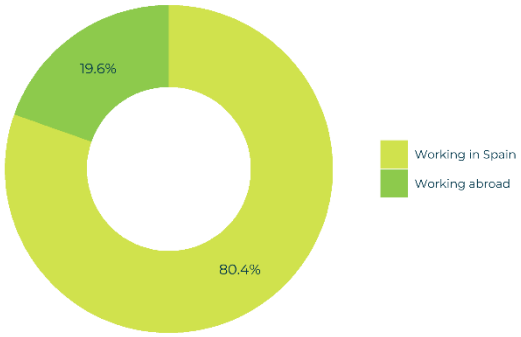
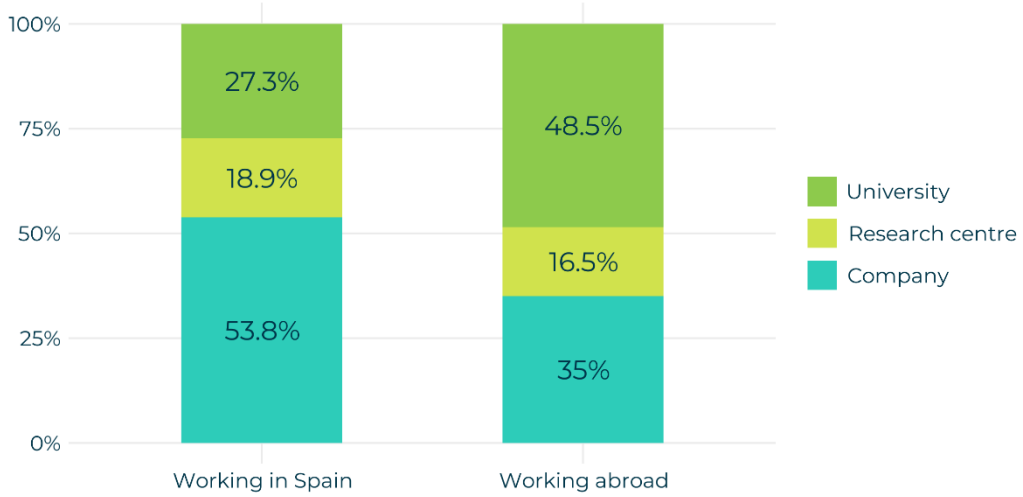


Figure 51. Geographical location of jobs by employer (universities, research centres or companies) (2026)

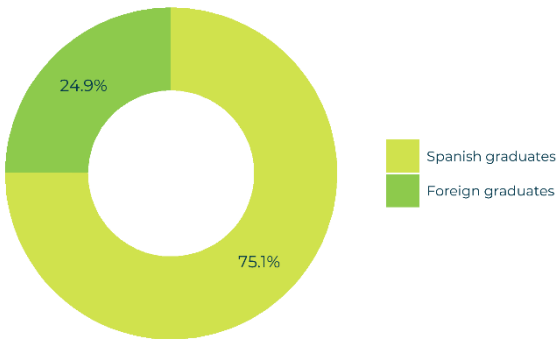


Talent retention and brain drain

The Catalan HES attracts more international students than it loses to brain drain

- From this 2026 edition onwards, an international student is defined as any person who, regardless of their nationality, has come from outside Spain to pursue a doctoral degree in the Catalan HES. It should be noted, however, that international student status coincides with nationality for the most part.
- International student status is a significant factor when it comes to whether the degree holder goes on to work abroad or remains in the country after graduating: while 9% of students who were already in the country when they began the programme decided to work abroad (brain drain), 48% of international students decided to stay in the country to work (talent retention).
- This means that the Catalan HES has a strong ability to attract talent across all academic disciplines.

Figure 52. Type of student (2026) [8]



[8] An international student is defined as any person who, regardless of their nationality, has come from outside Spain to pursue a doctoral degree in the Catalan HES. It should be noted that, in the sample, doctoral degree holders of foreign nationality are slightly under-represented (they make up 35% of the population, but account for 25% of the sample). Consequently, international students, most of whom are foreign nationals, are also under-represented in the sample.

Figure 53. Talent retention and brain drain (2026)

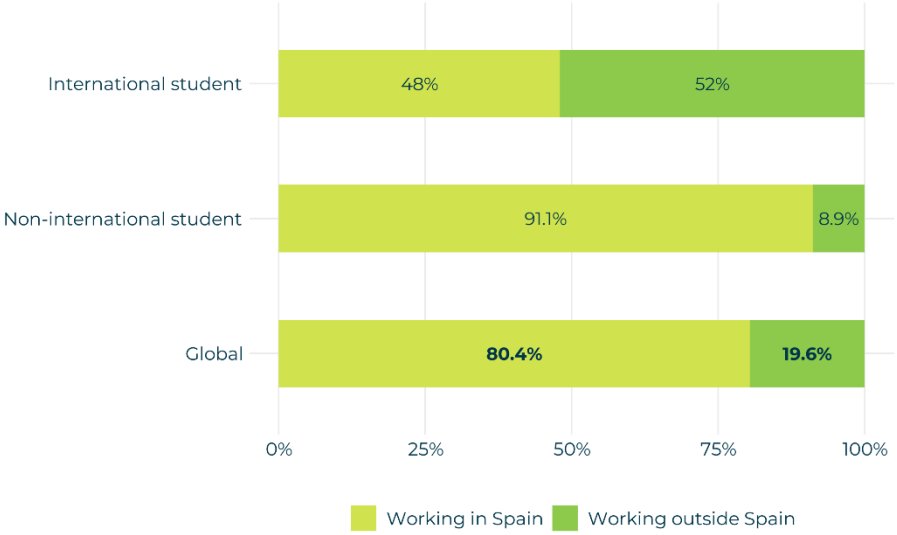
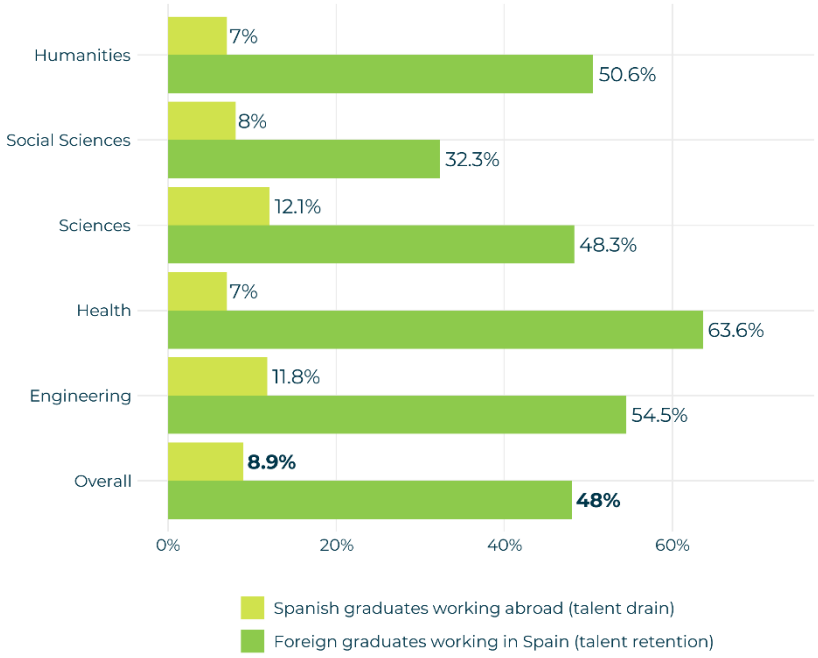


Figure 54. Talent retention and brain drain by academic discipline (2026)



CHAPTER 4. DO DOCTORAL DEGREE PROGRAMMES PREPARE CANDIDATES FOR THE LABOUR MARKET?

The main findings of this chapter are as follows:[9]

- Doctoral degree programmes mainly develop research-specific skills, such as the ability to work independently, generate knowledge, analyse data and present findings.
- These are valuable professional skills both within and outside academia, although they are used more extensively at universities and research centres. In the business sector, these skills are mainly useful in industry.
- Outside of academia, the doctoral skills that are most appreciated are transferable skills such as autonomy, teamwork, data analysis, knowledge generation, and presentation of findings.
- The main area for improvement in doctoral programmes lies in transferable and professional development skills: teamwork, English, networking and securing resources.
- Teamwork and English are two skills that are particularly relevant in the labour market, yet are still insufficiently developed during doctoral degree programmes.
- The mismatch between the training received and the usefulness of the skills is more pronounced at universities and research centres than in the business sector.
- The perception of skills attainment has improved compared with previous editions, suggesting that doctoral education is becoming better structured.
- Undertaking a thesis within a research group promotes skills development, particularly in teamwork and English.

[9] The 2026 results are presented for the full sample obtained. When analysing trends over time, however, the data are limited to doctoral degree holders with Spanish nationality, as this is the only group that participated in the first editions of the survey. Since 2020, the study has also included doctoral degree holders of foreign nationality, allowing for a more comprehensive understanding of current job placement trends.

→ 4.1. IMPACT OF THE DOCTORATE ON CAREER PATHS

Doctoral degrees are associated with better contract types and better pay for most people who worked while pursuing their degree

- Firstly, it should be noted that 67% of doctoral graduates combined their doctoral studies with employment for more than two years, and it is they who were asked about the impact of the doctorate on their job.
- Among this group, the impact of the doctoral degree is particularly significant in terms of contract type and pay: 80% and 73%, respectively, report an improvement. This perception is more common among those who currently hold an academic post.

Figure 55. People who had a job for at least two years while pursuing their doctoral degree

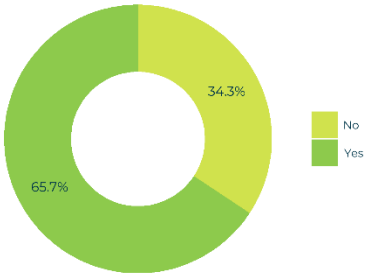


Figure 56. Impact of doctoral degree on current job in 2026 (scale of 0 to 10)



Note: only doctoral degree holders who worked for at least two years while pursuing their doctoral degree responded.

→ 4.2. WHAT SKILLS DO DOCTORAL DEGREE PROGRAMMES PROVIDE?

Skills acquisition

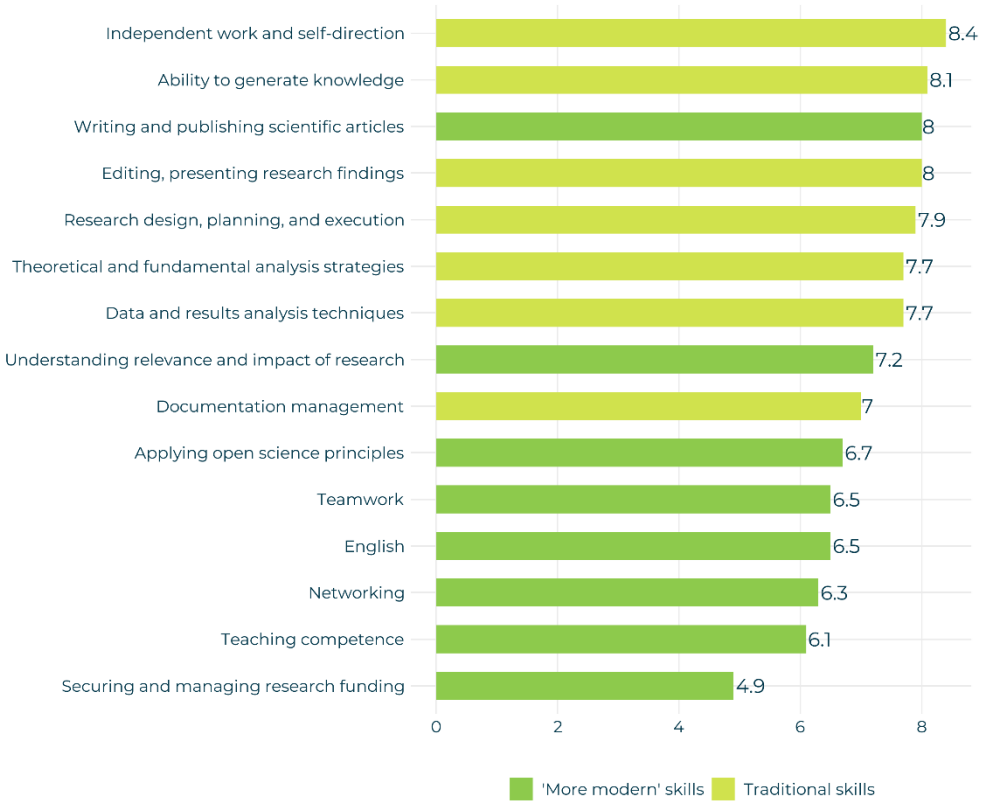
Core research skills are the skills that doctoral graduates acquire most effectively during their education

- Attainment is particularly high for skills directly linked to the research process, such as independent and self-directed work (8.4), the ability to generate new knowledge (8.1), as well as the publication and presentation of findings (8.0) and the drafting and publication of scientific articles (8.0). High levels are also observed in research design, planning and completion (7.9) and strategies for theoretical analysis and data analysis techniques (7.7).

- In contrast, lower levels of attainment are found for cross-cutting and professional development skills. Although some, such as the application of open science principles (6.7), English language skills (6.5) and teamwork (6.5), achieved mid-range scores, others lag further behind. Scores are particularly low in networking (6.3), teaching skills (6.1) and, above all, in securing and managing funding and resources for research (4.9).

- These findings are consistent with those of the ESF (2018), which identifies the acquisition of skills directly linked to research as one of the main outcomes of a doctoral education.

Figure 57. Degree of skills acquisition in 2026 (scale of 0 to 10)[10]



The skills that are most successfully acquired are consistent across all fields of study

- In other words, core research skills, especially independent and self-directed work, are the skills that all doctoral candidates acquire most successfully, regardless of their field of study.
- The main differences between fields are found in two cross-cutting skills: proficiency in English and teamwork. Proficiency in English is higher among doctoral students in Sciences and Engineering, while teamwork is particularly strong in the same two fields and also in Health. As will be shown in Chapter 6, these results are largely explained by the higher proportion of doctoral students who carry out their theses within research groups in these fields, a setting that fosters both collaboration and the regular use of English in research activities.

[10] The list of skills is based on sources that define the attributes expected of a doctoral graduate: the Joint Quality Initiative's Dublin descriptors (JQI 2004), IUA (2008), VITAE (2010) and LERU (2010).

Figure 58. Degree of skills acquisition in 2026 by field of study (scale of 0 to 10)

	Humanities	Social Sciences	Sciences	Health	Engineering
Documentation management	7.6	7.3	6.8	6.7	7.3
Theoretical and fundamental analysis strategies	7.7	8	7.7	7.4	8
Data and results analysis techniques	6.9	7.5	8	7.6	8.1
Editing, presenting research findings	7.7	7.9	8.2	7.9	8.3
Writing and publishing scientific articles	7.6	7.7	8.2	7.8	8.4
Research design, planning, and execution	7.7	8	8	7.8	8
Ability to generate knowledge	8.2	8.4	8.1	7.8	8.3
Independent work and self-direction	8.7	8.5	8.5	8.1	8.5
Networking	5.8	6.3	6.4	6.2	6.6
Understanding relevance and impact of research	7	7.5	7	7.3	7.1
Securing and managing research funding	4.8	4.8	4.8	4.9	5.2
Teaching competence	6.1	6.7	5.9	6.1	6
English	5.1	5.9	7.4	6.1	7.5
Teamwork	5.1	5.5	7.2	6.8	6.9
Applying open science principles	6.3	6.7	6.8	6.7	7.2

Improved perception of skills attainment during doctoral programmes since the regulatory change

- Royal Decree 99/2011 was intended to transform the doctorate from a model focused on completing a thesis to a more structured model of research training.
- For all the skills analysed, there has been a significant increase in attainment levels during the doctoral degree programme, which could point to an improvement in doctoral training as a result of the regulatory changes.

Figure 59. Changes in the degree of skills acquisition (2017-2026)



Note: the skill of applying open science principles was not assessed in 2017.

→ 4.3. WHICH SKILLS ARE USEFUL FOR WORK?

Usefulness of skills

Core research skills, as well as being the most successfully attained, are also the most useful in the workplace

- In fact, the ability to work independently is the skill seen as most useful, with a score of 8.6, followed by the ability to generate knowledge; publication and presentation of findings; research design, planning and completion; teamwork; techniques for analysing data and results; and English proficiency (all with ratings between 8.1 and 7.8).

Figure 60. Usefulness of the skills in 2026



Note: excludes individuals who do not perform university-level functions at work

Academic positions vs non-academic positions

In general, doctoral degree holders in academic posts rate all the skills acquired during their studies as more useful at work than their counterparts in non-academic positions

- This is particularly true for those working at universities. In fact, ratings of the usefulness of all skills are above 7.5 for those working at universities.
- Those employed at research centres rate the usefulness of most skills slightly lower than those at universities, although their ratings are still high.
- By contrast, ratings of the usefulness of skills are lower for those working at companies compared to other workplaces. Specifically, the most useful skills in companies are independent and self-directed work (8.3), teamwork, capacity for generating knowledge, data analysis techniques, and publication and presentation of findings (all of them with ratings above 7.5). Strictly academic skills, such as the writing and publication of scientific articles, teaching skills, the application of open science principles, and, above all, securing and managing research funding, are less relevant (all of them were rated below 6.5).
- It should be noted, however, that for some skills, doctoral graduates working in industry give usefulness ratings similar to those of their academic counterparts. Examples include document management (7.9), techniques for analysing data and results (8.3), independent and self-directed work (9) and English (8.7).
- These findings are consistent with Kyvik and Olsen (2012), who studied doctoral degree holders in Norway and found that, although those working outside academia considered the knowledge acquired during their doctoral degree programme to be relevant to their professional responsibilities, they rated the most academic aspects of their education as less applicable.

Figure 61. Usefulness of skills by employer (2026)

	University	Research centre	Company
Documentation management	8	7.6	7.4
Strategies for theoretical and fundamental analysis	8.5	7.9	7.1
Data and results analysis techniques	8.4	8.3	7.5
Editing, presenting research findings	8.6	8.3	7.5
Writing and publishing scientific articles	8.8	8.1	6.4
Research design, planning, and execution	8.7	8.4	7.3
Ability to generate knowledge	8.8	8.3	7.6
Independent work and self-direction	9	8.6	8.3
Networking	8.1	7.8	6.8
Understanding relevance and impact of research	8.2	7.6	6.9
Securing and managing research funding	7.7	7.1	5
Teaching competence	8.3	6.4	6.3
English	8.3	8.4	7.3
Teamwork	8.1	8.3	7.7
Applying open science principles	7.8	7.4	6.3

Note: Assessments of the usefulness of skills are shown only for doctoral degree holders who perform skilled (specific or university) roles; those who report that they do not perform university roles at work have been excluded.

Figure 62. Usefulness of skills by economic sector employing doctoral degree holders (only for those working for companies)

	Industry	Education, culture and research	Health and social care
Documentation management	7.9	7.3	7.2
Strategies for theoretical and fundamental analysis	7.6	7.1	7
Data and results analysis techniques	8.3	7	7.3
Editing, presenting research findings	8.1	7.4	7.5
Writing and publishing scientific articles	5.9	6.1	7.2
Research design, planning, and execution	7.8	7.1	7.3
Ability to generate knowledge	8.1	7.5	7.6
Independent work and self-direction	9	8.5	8
Networking	7.6	6.4	6.9
Understanding relevance and impact of research	7	7	7.3
Securing and managing research funding	5.1	5	5.5
Teaching competence	5.7	7.1	6.7
English	8.7	6.8	6.8
Teamwork	8.4	7.2	7.8
Applying open science principles	6.2	6.3	6.7

Note: Assessments of the usefulness of skills are shown only for doctoral degree holders who perform skilled (specific or university) roles; those who report that they do not perform university roles at work have been excluded.

→ 4.4. ALIGNMENT BETWEEN A DOCTORAL EDUCATION AND THE NEEDS OF THE LABOUR MARKET

Skills gaps

Doctoral programmes have room for improvement in terms of equipping students with skills relevant to the workplace

- The skills with the greatest discrepancy between the level attained during the doctoral programme and usefulness in the workplace are those linked to more cross-cutting and contemporary professional profiles, such as **networking, English, securing and managing funds, and teamwork**. This pattern is repeated across all fields of study.
- These results indicate that there is considerable room for improvement regarding the integration and development of these skills during doctoral programmes.

Figure 63. Difference between level and usefulness by employer in 2026 (only for those with specific or university responsibilities)



Note: Positive values indicate that the skill level attained during the programme is higher than the usefulness of this skill in the workplace. Conversely, negative values indicate that the skill level attained during the programme is lower than the usefulness of this skill in the workplace.

Figure 64. Difference between level and usefulness by field in 2026 (only for those with specific or university responsibilities)

	Humanities	Social Sciences	Sciences	Health	Engineering
Independent work and self-direction	0.3	-0.1	-0.3	-0.3	-0.3
Teamwork	-1.5	-1.9	-1.2	-1.2	-1.4
Data and results analysis techniques	0.1	-0.4	-0.3	-0.1	-0.3
Writing and publishing scientific articles	0.4	0	1	0.3	1.1
Securing and managing research funding	-1.1	-1.5	-1.4	-1.2	-1.4
Applying open science principles	-0.3	-0.6	-0.2	-0.2	0.2
Networking	-0.8	-1.1	-1.3	-1.1	-1.2
Understanding relevance and impact of research	-0.1	-0.2	-0.4	-0.2	-0.2
English	-1.6	-1.4	-1.2	-1.4	-1.1
Strategies for theoretical and fundamental analysis	0.4	0.1	-0.1	0	0.1
Editing, presenting research findings	0.3	-0.1	0	0	0
Documentation management	0	-0.4	-0.9	-0.7	-0.7
Research design, planning, and execution	0.2	0	-0.3	0	-0.1
Ability to generate knowledge	0.6	0	-0.1	-0.1	-0.1
Teaching competence	-1.1	-1.1	-0.6	-0.8	-0.7

Note: The difference between the level attained during the programme and the usefulness of the skill at work is shown in green when the level attained is more than 0.5 points higher than the usefulness, and in pink when the usefulness is more than 0.5 points higher than the level attained.

The skills gap is more pronounced among doctoral degree holders working at universities or research centres

- Taking into account the different employment outcomes of doctoral degree holders, the skills gap associated with a doctoral education is particularly notable among those working at universities or research centres, that is, those who primarily carry out research-related work.
- In contrast, among doctoral degree holders working for companies, the perceived shortcomings are found in only three skills: teamwork, networking and proficiency in English.

Figure 65. Difference between level and usefulness by employer in 2026 (only for those with specific or university responsibilities)

	University	Research centre	Company
Independent work and self-direction	-0.4	-0.4	0
Teamwork	-1.5	-1.2	-1.4
Data and results analysis techniques	-0.7	-0.5	0.2
Writing and publishing scientific articles	-0.5	-0.2	1.5
Securing and managing research funding	-2.4	-2.1	-0.4
Applying open science principles	-0.9	-0.8	0.5
Networking	-1.4	-1.5	-0.8
Understanding relevance and impact of research	-0.9	-0.6	0.3
English	-1.7	-1.5	-1
Strategies for theoretical and fundamental analysis	-0.6	-0.3	0.6
Editing, presenting research findings	-0.5	-0.3	0.5
Documentation management	-0.8	-0.9	-0.3
Research design, planning, and execution	-0.7	-0.7	0.6
Ability to generate knowledge	-0.5	-0.4	0.5
Teaching competence	-1.9	-0.6	-0.2

Note: The difference between the level attained during the programme and the usefulness of the skill at work is shown in green when the level attained is more than 0.5 points higher than the usefulness, pink when the usefulness is more than 0.5 points higher than the level attained, and red when the usefulness is more than 2 points higher than the level attained.

What kinds of professionals do doctoral programmes produce?

Generally speaking, the skills that most need to be improved in doctoral programmes, due to the perception that they are highly useful in the workplace, are teamwork and English

- These skills fall within the quadrant that combines a below-average level of attainment with a high rating for professional usefulness.
- For those working at universities or research centres, the main skill that needs to be strengthened is proficiency in English, given its high usefulness and the relatively low level of attainment.
- For those working for companies, in addition to teamwork and English, there is also a clear need for improvement in document management.

Figure 66. Matrix of skills level and usefulness (2026)

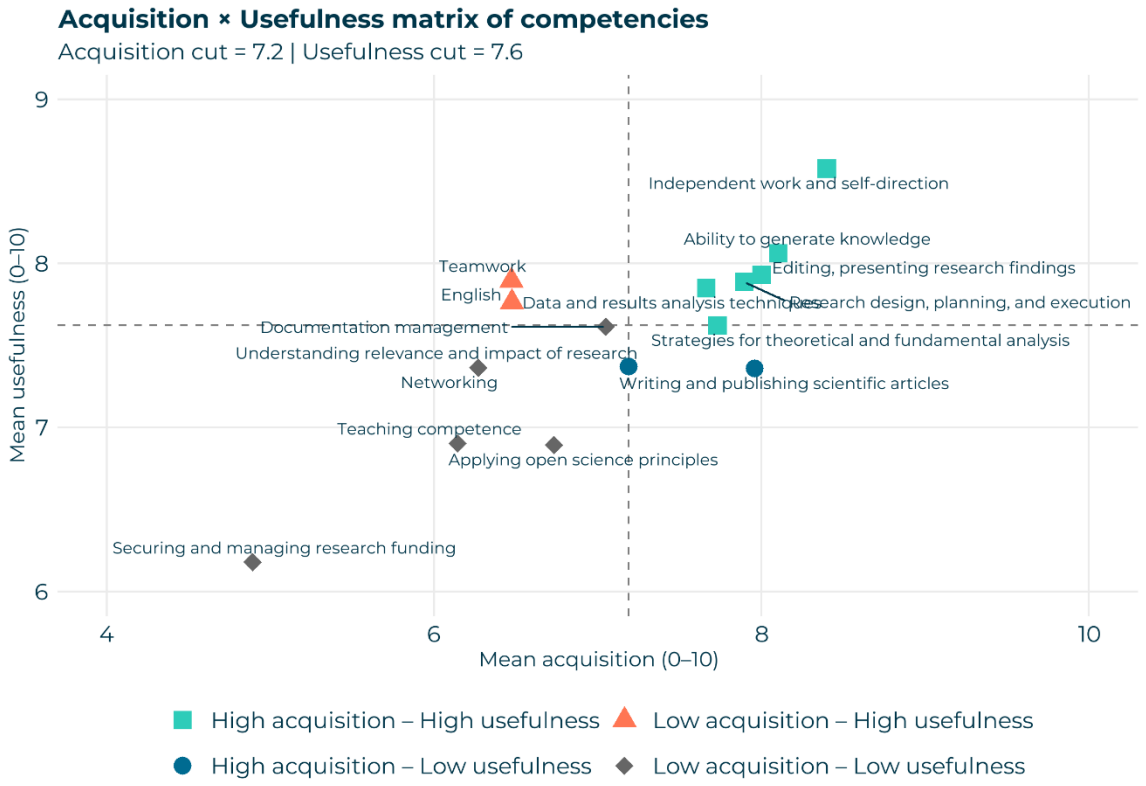


Figure 67. Matrix of skills level and usefulness in academic positions (2026)

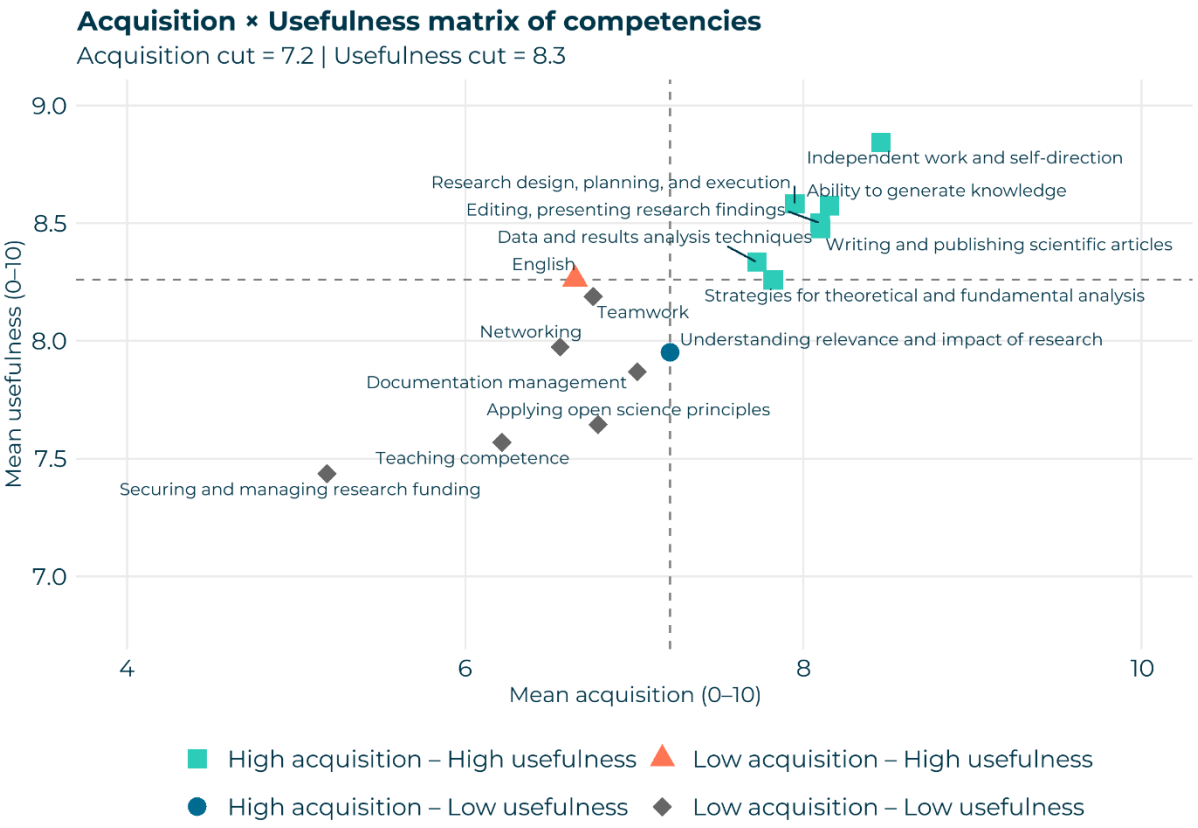
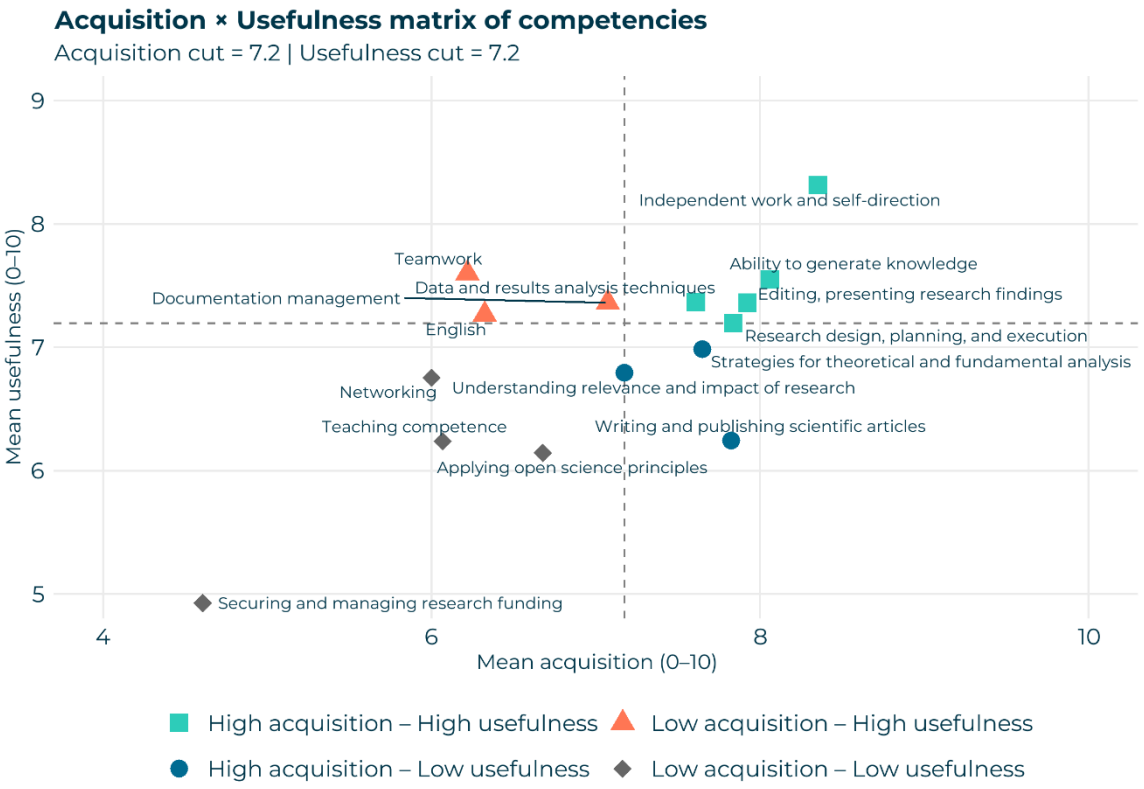


Figure 68. Matrix of skills level and usefulness in non-academic positions (2026)



CHAPTER 5. IS EARNING A DOCTORATE WORTH IT?

The main findings of this chapter are as follows:[11]

- For the vast majority, pursuing a doctoral degree continues to be worthwhile: 8 out of 10 would do it again.
- Thesis supervision is the main strength of doctoral programmes: it is the most highly rated aspect across the board.
- Overall satisfaction with doctoral programmes is high, but supplementary training remains a weak point.
- Career prospects weigh heavily in the decision not to pursue a doctorate again.
- Doctoral programmes also take a personal toll: one out of three doctoral students reports having experienced mental health problems.
- Mental health is a cross-cutting concern: it affects at least a third of doctoral students across all fields of study.
- Female doctoral students report more mental health problems than men, with a particularly pronounced gap in the Humanities.

[11] The 2026 results are presented for the full sample obtained. When analysing trends over time, however, the data are limited to doctoral degree holders with Spanish nationality, as this is the only group that participated in the first editions of the survey. Since 2020, the study has also included doctoral degree holders of foreign nationality, allowing for a more comprehensive understanding of current job placement trends.

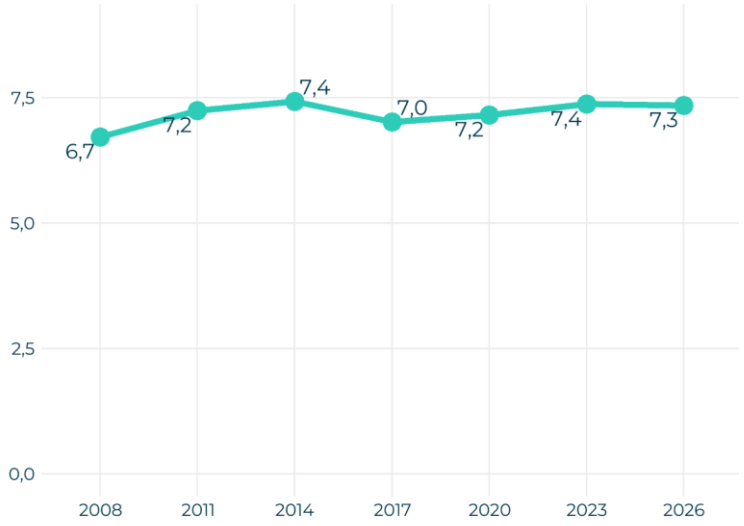
→ 5.1. SATISFACTION WITH DOCTORAL STUDIES

The quality of supervision during the thesis process is the most highly rated aspect of doctoral programmes across all fields of study

- The average satisfaction rating among doctoral graduates regarding thesis supervision is 8.1. Satisfaction with the quality of departmental resources stands at 7.3, while satisfaction with the content and quality of training activities stands at 6.4.
- Overall satisfaction with doctoral degree programmes reached 7.4 in 2026.
- Satisfaction with the quality of supervision during the thesis process is high across all fields of study, particularly in the Social Sciences and Engineering. Meanwhile, satisfaction is lowest in relation to the content and quality of training activities, particularly in the field of Health.

A *Nature* survey of more than 5,700 doctoral students worldwide found that over 75% were satisfied with their decision to pursue a doctorate. The study indicated that satisfaction with the supervision process – specifically the guidance and recognition from thesis supervisors – is the factor that contributes most to the overall satisfaction with the programme (Woolston 2017).

Figure 69. Trends in overall satisfaction with doctoral degree programmes (scale of 0 to 10; only Spanish citizens)



Note: prior to 2023, responses were collected on a scale of 1 to 7; they have been converted to a scale of 0 to 10 for comparison purposes.

Figure 70. Satisfaction with various aspects of doctoral degree programmes in 2026 (scale of 0 to 10)

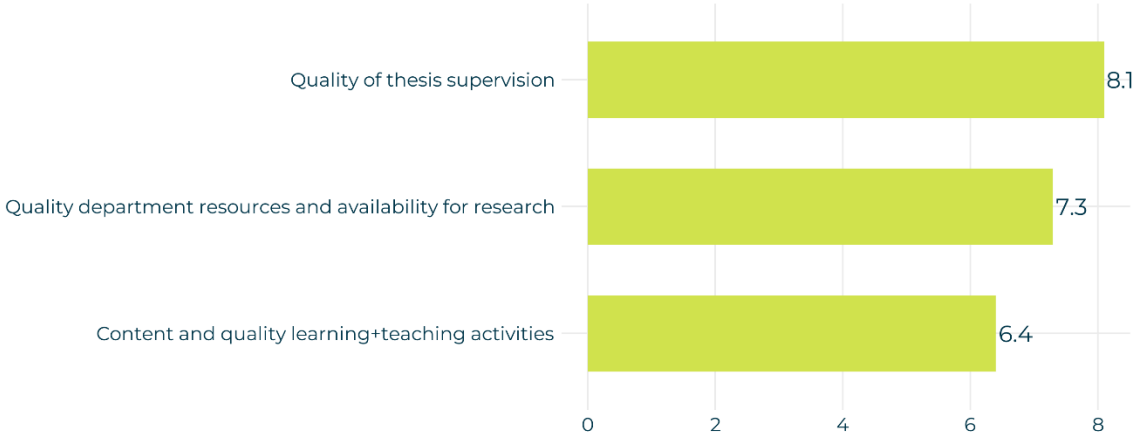


Figure 71. Satisfaction with various aspects of doctoral degree programmes by field of study (2026)

	Humanities	Social Sciences	Sciences	Health	Engineering
Quality of thesis supervision	8.1	8.4	7.9	7.9	8.4
Quality department resources and availability for research	6.9	7.1	7.4	7.1	7.9
Content and quality learning+teaching activities	6.4	7.1	6.2	5.9	6.9
Overall satisfaction	7.4	7.8	7.5	7.3	8

→ 5.2. WILLINGNESS TO PURSUE THE DOCTORATE AGAIN

The doctorate is a choice that most would make again

- Eight out of ten doctoral degree holders would pursue the degree again. This indicator has remained highly stable throughout the entire period analysed, with figures ranging between 80% and 86%, which speaks to an overall positive and consistent assessment of the doctoral programme experience. This pattern is consistent with the results observed at European level (ESF 2017).
- There are no major differences in the willingness to pursue the doctorate again by field of study: the highest figure is in Social Sciences, at 86.5%, and the lowest is in Sciences, where 78% would do it again. Within each field, however, there is considerable variation at sub-field level.
- The main reason for not pursuing a doctorate again is dissatisfaction with career prospects. Nevertheless, the 'other reasons' category also reflects those who feel that the doctorate was not worth it or is not valued, as well as those who cite mental health issues during the programme, stemming from job insecurity and the challenges of completing a doctoral thesis.

Figure 72. Trends in the percentage of doctoral degree holders who would pursue their doctorate again (only Spanish citizens)

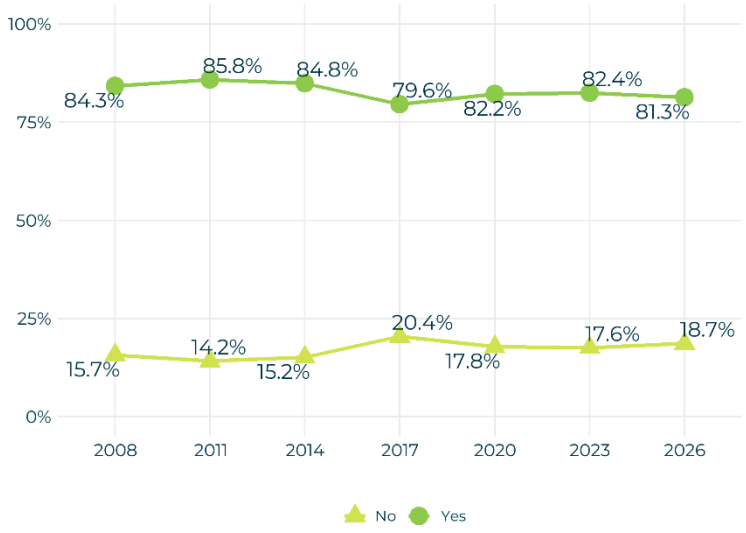


Figure 73. Percentage of doctoral degree holders who would pursue their doctorate again, by field of study (2026)

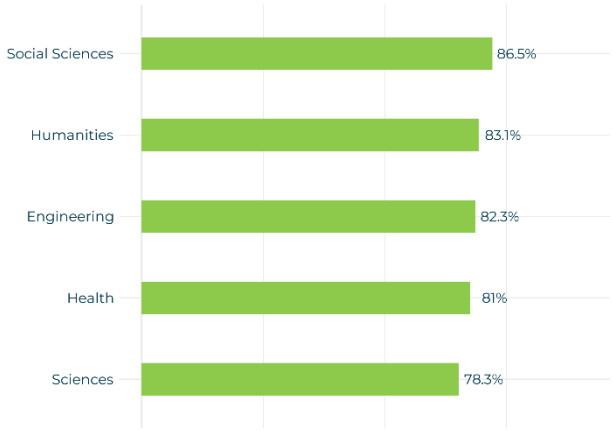


Figure 74. Percentage of doctoral degree holders who would pursue their doctorate again, by sub-field of study (2026)

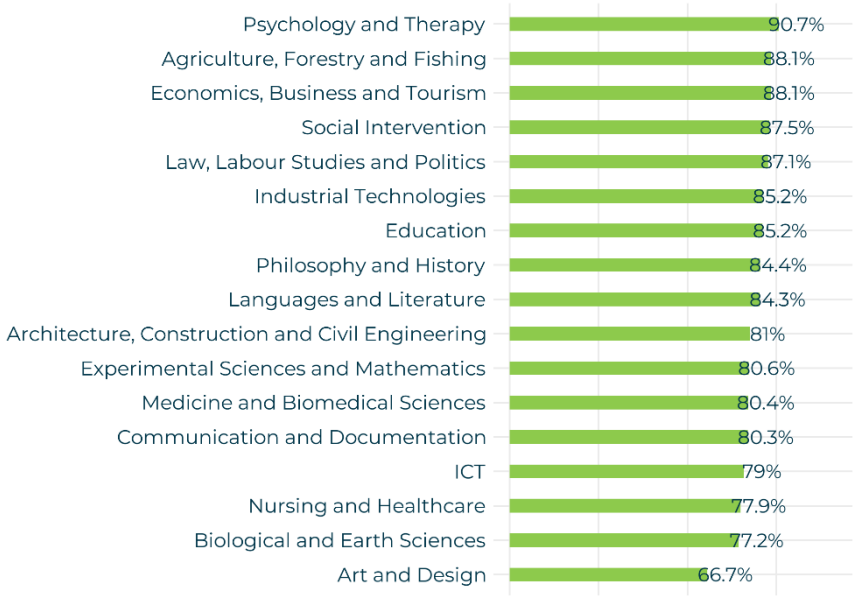
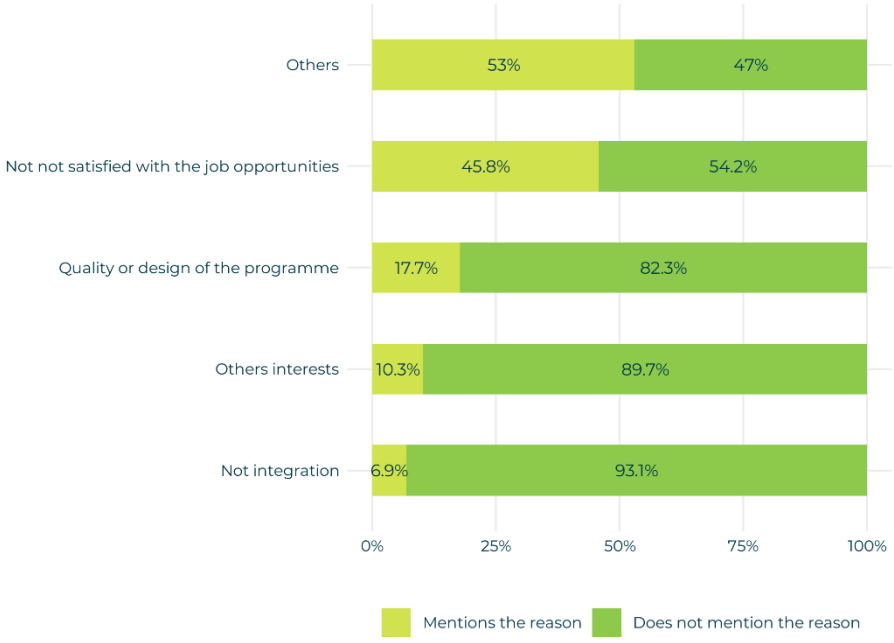


Figure 75. Reasons doctoral degree holders would not choose to pursue the doctorate again (more than one response allowed; 2026)



→ 5.3. WELL-BEING DURING DOCTORAL PROGRAMMES

Mental health

One out of three doctoral students has experienced mental health problems during their doctoral studies

- Specifically, 37% report having experienced depression, chronic anxiety or other mental health problems during their doctoral programme. The prevalence ranges from 33% in Social Sciences to 42% in Sciences.
- This finding is part of a broader problem within the Catalan HES. In fact, a recent study shows that around 40% of university students, especially women and non-binary people, have experienced higher levels of emotional distress and symptoms of anxiety, depression and burnout (Departament de Recerca i Universitats 2023). In this context, the finding that 37% of doctoral graduates report having experienced mental health problems during their doctorate suggests that this stage of education also involves significant risk factors, linked to academic demands, the pressure to make progress on a thesis, and the conditions of research work.
- A study by Woolston (2017) found that nearly a third identified mental health as one of their main concerns. Of these, 45% had already sought help for anxiety or depression caused by their doctoral programme.

Figure 76. Mental health problems (2026)

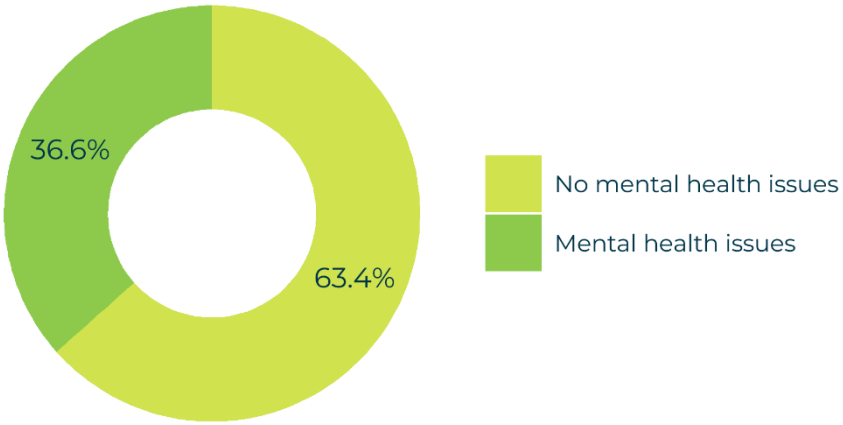
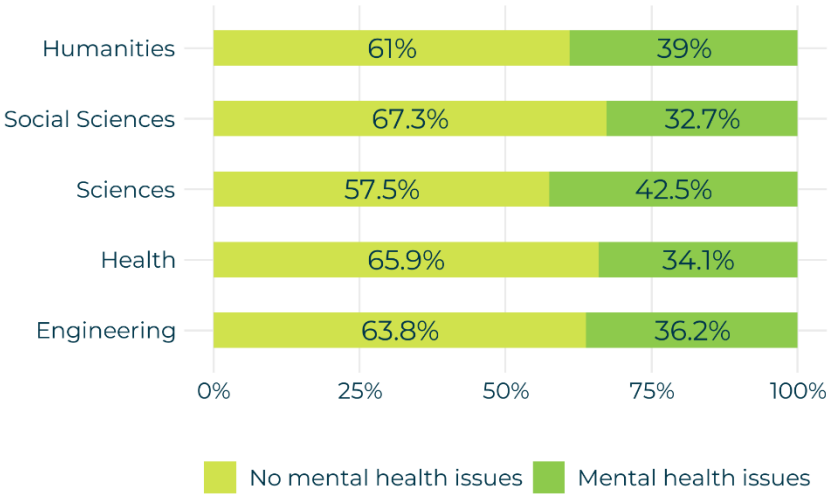


Figure 77. Mental health problems by field of study (2026)



Mental health and gender

Female doctoral students are at greater risk of facing mental health problems while pursuing their doctorate

- Forty-one per cent of women report having experienced mental health problems during their doctoral studies, 10 percentage points more than men.
- This difference between women and men is statistically significant in all fields of study except Social Sciences.
- The gender gap is particularly pronounced in Humanities.

Figure 78. Mental health problems by sex (2026)

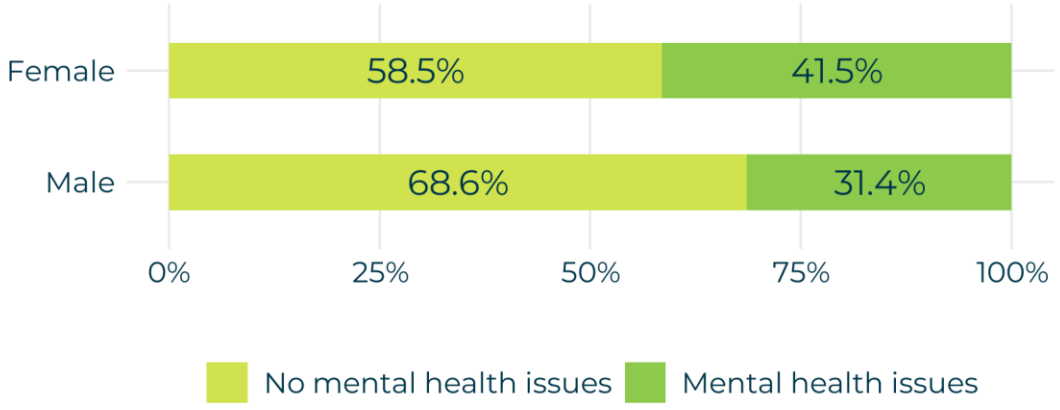
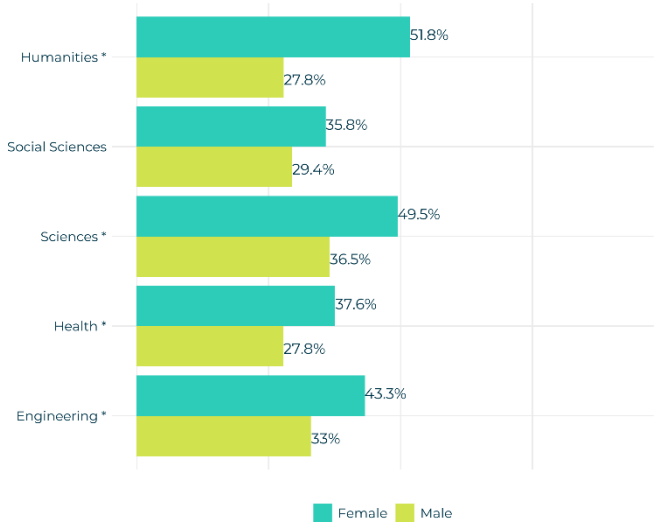


Figure 79. Mental health problems by field and sex (2026)



Note: Fields marked with an asterisk show statistically significant differences according to the chi-squared test ($p < 0.05$).

CHAPTER 6. EXPERIENCES IN DOCTORAL DEGREE PROGRAMMES

The main findings of this chapter are as follows:[12]

- Grants continue to be the main route to a doctoral degree.
- Funding for doctoral degrees continues to depend too heavily on the field of study: in Sciences, grants are the norm; in Social Sciences and Humanities, they are available to only a minority.
- Completing a thesis in a research group is not the norm across the board. Fifty-six per cent of doctoral candidates completed their thesis within a group, but there are significant differences between fields.
- Research groups act as accelerators of skills development: doctoral graduates who worked in research groups report an equal or higher level of skills attainment, particularly in teamwork and English.
- International mobility is losing momentum. Although 45% had some mobility experience during their doctorate, mobility abroad among Spanish doctoral students has been on a downward trend since 2011.

[12] The 2026 results are presented for the full sample obtained. When analysing trends over time, however, the data are limited to doctoral degree holders with Spanish nationality, as this is the only group that participated in the first editions of the survey. Since 2020, the study has also included doctoral degree holders of foreign nationality, allowing for a more comprehensive understanding of current job placement trends.

→ 6.1. FUNDING DURING DOCTORAL DEGREE PROGRAMMES

For half of those surveyed, a grant (or research trainee contract) was the main source of funding for their doctoral degree

- In 2026, 49% funded their studies through a grant, 25% through work in the field of their pre-doctoral studies, and the remainder through other channels (university lecturer/researcher, unrelated work or not working).
- There is considerable variation in access to grants depending on the field of study: while in Sciences this figure stands at 72%, in Social Sciences and Humanities it is only 35%.
- Grants have been the main source of funding for the majority of doctoral students over time.

Figure 80. Type of funding during doctoral degree programmes (2026)

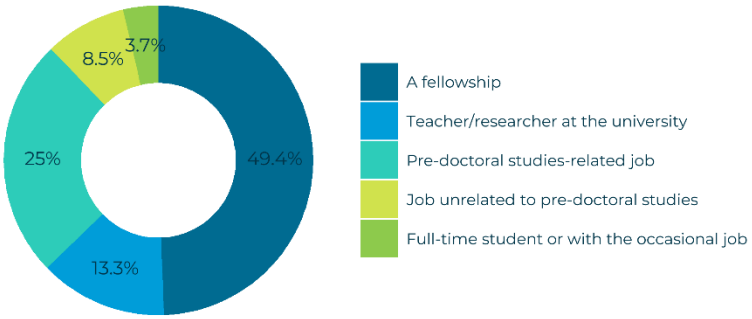


Figure 81. Percentage of doctoral degree holders who have received a grant, by field of study (2026)

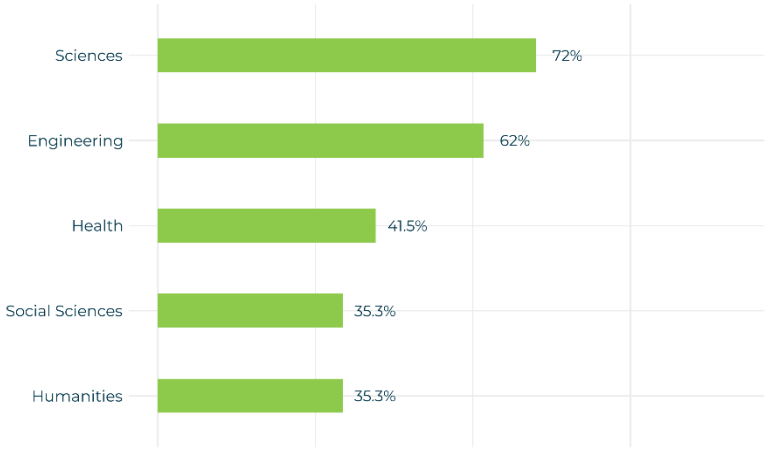
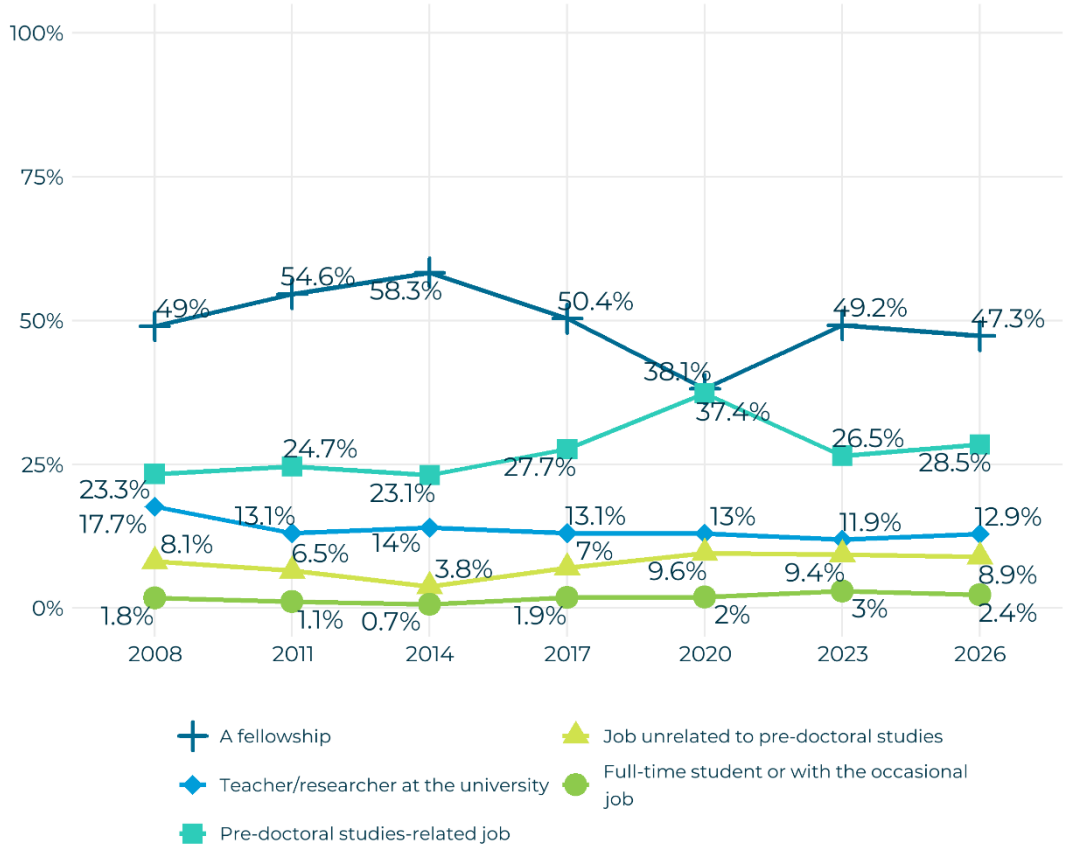


Figure 82. Trends in funding during doctoral degree programmes (only Spanish citizens)


100%
75%
50%
25%
0%
2008
2011
2014
2017
2020
2023
2026
49%
54.6%
58.3%
50.4%
38.1%
49.2%
47.3%
23.3%
24.7%
23.1%
27.7%
37.4%
26.5%
28.5%
17.7%
13.1%
14%
13.1%
13%
11.9%
12.9%
8.1%
6.5%
3.8%
7%
9.6%
9.4%
8.9%
1.8%
1.1%
0.7%
1.9%
2%
3%
2.4%
A fellowship
Teacher/researcher at the university
Pre-doctoral studies-related job
Job unrelated to pre-doctoral studies
Full-time student or with the occasional job

→ 6.2. RESEARCH GROUPS

A total of 56% of doctoral candidates completed their thesis in a research group

- Significant differences are observed depending on the field of study: while in Sciences, Health and Engineering the majority of doctoral degree holders were part of a research group (80%, 66% and 66%, respectively), in Social Sciences and Humanities they were a minority (23% and 25%, respectively).

- This percentage fell in 2014 and has remained relatively stable since 2020. This finding suggests that the 2011 regulatory changes in doctoral degree programmes did not lead to a significant increase in the relative proportion of theses carried out within research groups. However, in absolute terms, the increase in the number of doctoral students means that there are now more people writing their theses in this setting. At the same time, the results show that this experience has a clearly positive impact on skills acquisition, particularly in relation to teamwork and English.

Figure 83. Format of thesis work (2026)

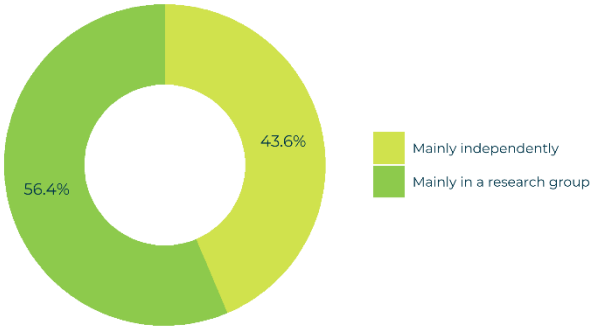


Figure 84. Percentage of thesis work formats by field (2026)

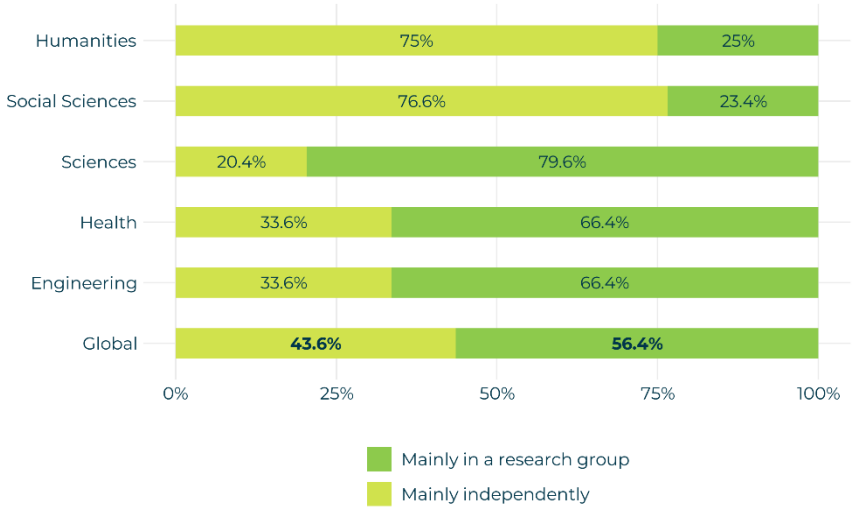
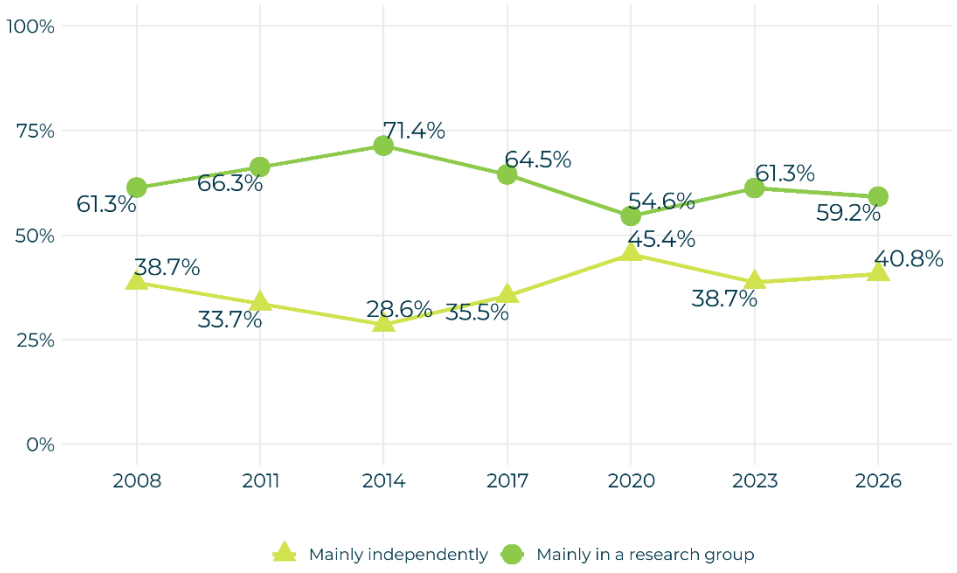


Figure 85. Trends in thesis work formats (only Spanish citizens)



Doctoral graduates who completed their thesis within a research group have greater or equal levels of attainment compared with other doctoral graduates

- Doctoral degree holders who completed their thesis in a research group, compared with those who completed it independently, have a greater level of attainment in many of the skills assessed, especially teamwork and English proficiency.

Figure 86. Degree of skills acquisition in 2026 by thesis work format (scale of 0 to 10)

	Mainly independently	Mainly in a research group
Documentation management	7.2	7
Theoretical and fundamental analysis strategies	7.7	7.8
Data and results analysis techniques	7.3	7.9
Editing, presenting research findings	7.7	8.2
Writing and publishing scientific articles	7.7	8.1
Research design, planning, and execution	7.8	8
Ability to generate knowledge	8.1	8.1
Independent work and self-direction	8.4	8.4
Networking	5.9	6.6
Understanding relevance and impact of research	7.2	7.1
Securing and managing research funding	4.6	5.1
Teaching competence	6.1	6.2
English	5.8	7
Teamwork	5.4	7.3
Applying open science principles	6.7	6.8

→ 6.3. INTERNATIONAL MOBILITY DURING DOCTORAL STUDIES

45% of doctoral degree holders had mobility experiences during their doctoral studies

- These mobility experiences were mainly abroad (national mobility accounts for 5%).
- There are no significant differences between fields of study, with the exception of Health, where only 30% of doctoral students had any mobility experience during their studies. This lower mobility is found mainly in the sub-field of Medicine and Biomedical Sciences. Although the proportion of doctoral students who were working while pursuing their degree is similar to that of the sample as a whole, it is likely that, in this sub-field, work is more closely linked to healthcare and hospital settings, which may make prolonged absences difficult, given the need to maintain continuity in professional, clinical or research activities linked to local patients, services or infrastructure.
- In this regard, it is worth noting that 65% of doctoral graduates worked while pursuing their degree, and there are no significant differences between fields of study (the figures range from 60% in Engineering to 69% in Sciences). Therefore, working while studying would not explain the low mobility of doctoral students in Health.
- Mobility abroad among doctoral students of Spanish nationality has been on a downward trend since 2011, falling from 50% of Spanish doctoral students to 36% in 2026.

Figure 87. Mobility during doctoral studies by field of study (2026)

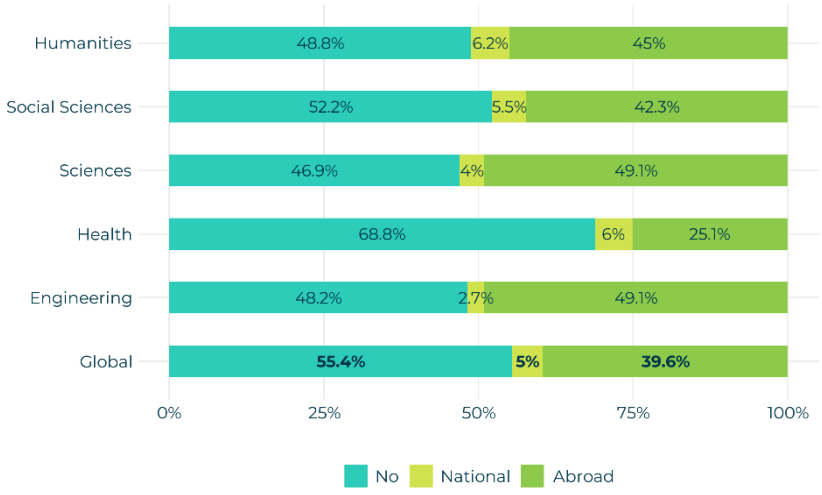


Figure 88. Mobility during doctoral studies by sub-field of study (2026)

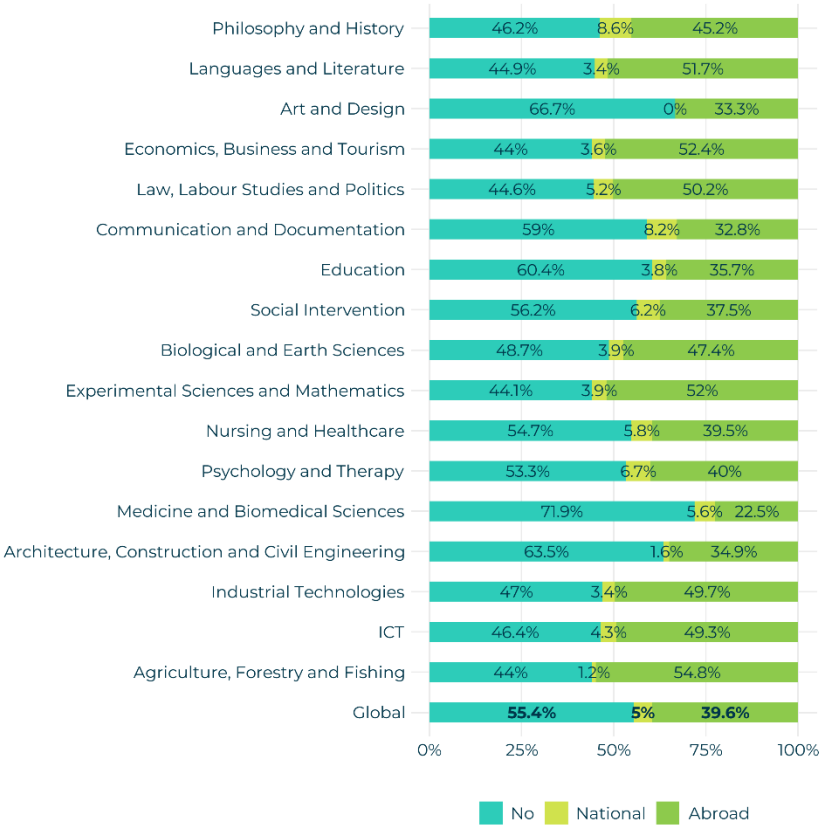
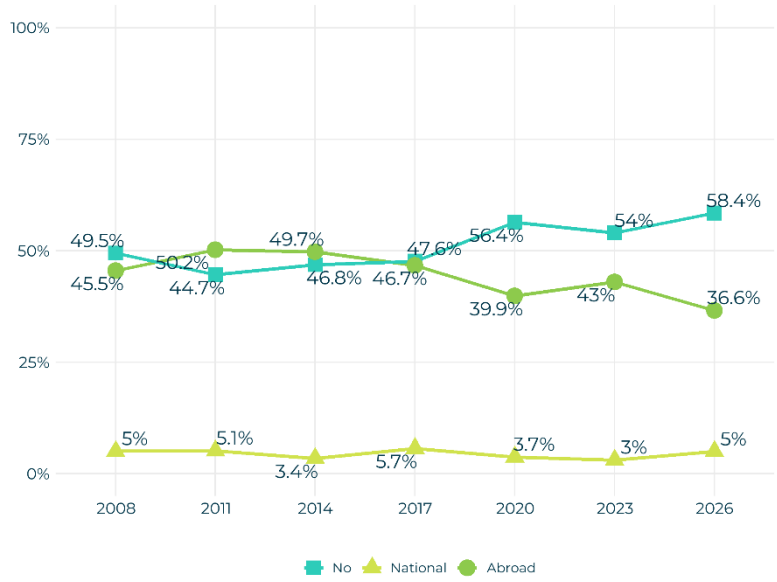


Figure 89. Trends in mobility during doctoral studies (only Spanish citizens)



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DATA SHEET

Table 4. Survey of doctoral graduates of the Catalan HES

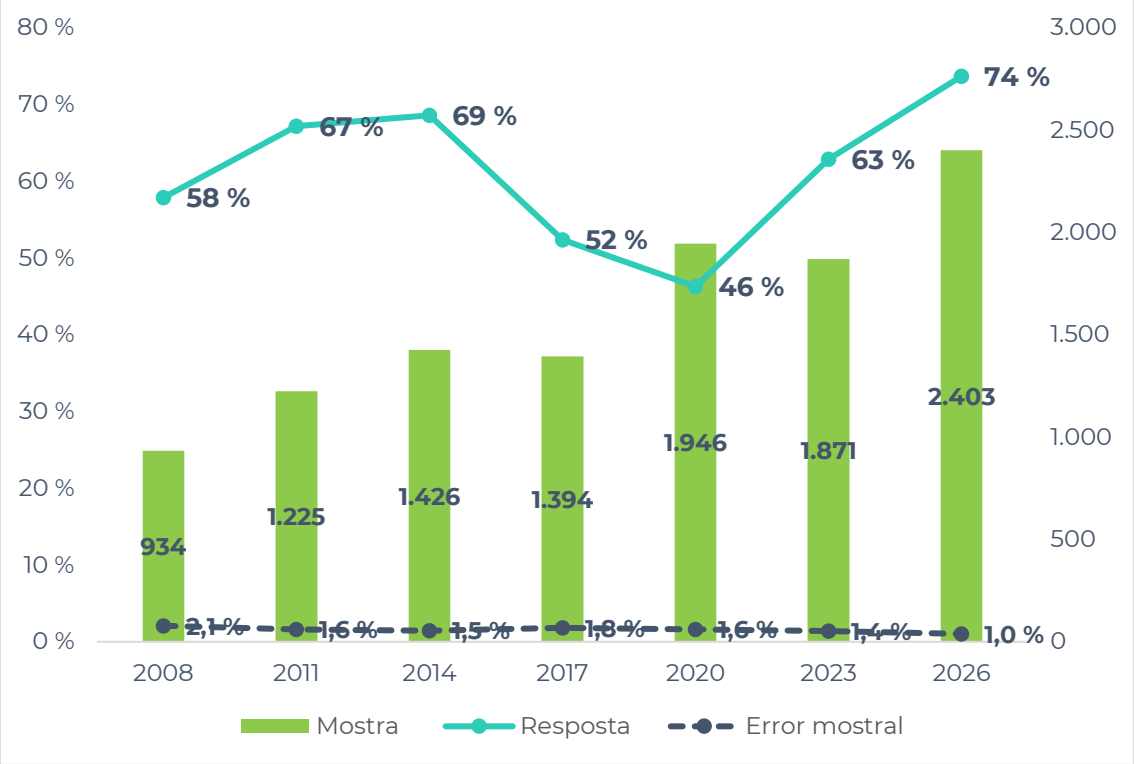
Population	People who earned a doctorate in academic years 2020-2021 and 2021-2022
Survey period	Fieldwork combining two formats: – online, from 10/11/2025 to 9/12/2025 – over the phone, from 13/01/2026 to 23/02/2026
Average duration of the survey	Online stage: 14' 52'' Telephone stage: 13' 17''
Participating universities	UB, UAB, UPC, UPF, URL, UdL, UdG, URV, UOC, UVic-UCC, UIC and UAO CEU

Table 5. Population data and sample of doctoral degree holders from Catalan universities (2026)

University	Population	Sample	Response rate	Sampling error
Universitat de Barcelona	1,483	971	65.5%	1.8%
Universitat Autònoma de Barcelona	1,561	942	60.3%	2.0%
Universitat Politècnica de Catalunya	525	319	60.8%	3.4%
Universitat Pompeu Fabra	452	286	63.3%	3.5%
Universitat Ramon Llull	119	79	66.4%	6.4%
Universitat de Lleida	181	120	66.3%	5.2%
Universitat de Girona	213	146	68.5%	4.6%
Universitat Rovira i Virgili	329	210	63.8%	4.1%
Universitat Oberta de Catalunya	46	31	67.4%	10.2%
Universitat de Vic-Universitat Central de Catalunya	61	48	78.7%	6.6%
Universitat Internacional de Catalunya	63	41	65.1%	9.1%

Universitat Abat Oliba CEU	15	7	46.7%	28.0%
TOTAL	**5,048**	**3,200**	**63.4%**	**1.0%**

Figure 90. Trends in the sample, response rate and sampling error for the survey (only Spanish citizens)



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