



SHE FIGURES 2021

GENDER EQUALITY IN RESEARCH AND INNOVATION

SPAIN

About She Figures 2021

The She Figures publication, first released in 2003 and updated every three years since, presents data on many of the European Commission's gender equality priorities in the field of research and innovation policy. She Figures 2021 presents data and analysis for approximately 88 indicators to monitor the state of gender equality in research and innovation across Europe. The chapters follow the 'chronological journey' of women and men from graduating from doctoral education to participation in the labour market and in decision-making roles. Women and men's relative working conditions and research and innovation outputs are also considered. This country fiche presents a selection of results from the She Figures 2021 publication following the career trajectory of women and men in research and innovation.

Spain ranks 6th in the EU on the Gender Equality Index, scoring 73.7 out of 100 points (EIGE, 2021). Within EIGE's Gender Equality Index, the domain of power measures gender equality in decision-making positions across the political, economic and social spheres. Spain has a score of 76.9 out of 100 points in this domain. Recent data from She Figures 2021 find that there have been improvements in women's representation at the highest level of academic (grade A) (from 22% to 24%), among board members (from 39% to 45%) and among heads of institutions in the Higher Education Sector (HES) (from 8% to 18%) between the reference periods examined.

Table 1: Proportion (%) of women among doctoral graduates, 2010 and 2018

Country	Women ISCED 8 graduates (%) 2010	Women ISCED 8 graduates (%) 2018
ES	48.15	52.60

Source: Eurostat – Education Statistics (online data codes: educ_grad5 and educ_uoe_grad02), UNESCO Institute for Statistics (Tertiary graduates by level of education).

The results from Spain show that 52.6% of doctoral graduates were women in 2018, a proportion which is above the European level value of 48.1%. Since 2010, there has been a 4.4

percentage point increase in the proportion of women among doctoral graduates, leading to progress towards gender parity. Overall, the proportion of women among doctoral graduates in Spain ranks as 9th highest in the EU-27.

Table 2: Percentage (%) of self-employed women among S&E and ICT Professionals, 2018

Country	Percentage (%) of self-employed women among S&E and ICT Professionals
ES	24.06

Notes: Data are based on weighted values in thousands.
Source: Eurostat – Labour Force Survey Annual Average Quarterly data 2018

Despite more women than men represented among doctoral graduates in Spain, considerable inequalities persist in the labour market where women represented only 24.1% of self-employed professionals in Science & Engineering (S&E) and Information and Communication Technologies (ICT) in 2018. This is slightly below the European average of 24.9% in 2018. Across 24 EU Member States and Associated Countries with available data, Spain ranked 10th in terms of countries with the highest percentage of self-employed women among S&E and ICT professionals.

Table 3: Proportion of RPOs that have taken measures and actions to promote Gender Equality, by type of organisation, 2020

Country	Proportion of websites with info on actions/ measures towards Gender Equality		
	HEIs	PROs	Total
ES	98.78	n/a	98.78

Source: information scraped from the websites of higher education institutions listed in the European Tertiary Education Register (ETER), and of public bodies and research organisations that participated in projects under FP7 and H2020 and/or that were indicated by the Statistical Correspondents.

Notes: For IE websites were searched in English

One way to improve working conditions for women and men researchers and promote gender equality in research careers is through institutional reform. In Spain, 96% of public universities have a Gender Equality Plan (GEP) in place. The national law imposes requirements for GEPs in public Higher Education Institutions (HEIs) and/or Research Performing Organisations (RPOs) and establishes building blocks, support structures, and sanctions regarding the implementation of GEPs (ERAC SWG GRI, 2021). Data from She Figures show that in line with the European Commission’s approach to foster institutional change through GEPs, in 2020, 99% of HEIs in Spain mentioned measures and actions to strengthen gender equality on their websites.

Table 4: Evolution of the proportion (%) of women among Grade A positions, 2013, 2015 and 2018

Country	2013	2015	2018
ES	21.76	20.88	23.90

Notes: (2015 & 2018 data): Data are Headcounts (HC); break in time series (2015); some researchers cannot be assigned to a grade. (2013 data): see She Figures 2018 (Figure 6.3). Source: Women in Science database, DG Research and Innovation - T1_questionnaires

Across all years examined, the proportion of women in top academic positions (grade A) in Spain was marginally below the European average. In 2018, 23.9% of grade A positions were held by women, compared to a European average of 26.2%. There has been a small degree of progress towards increasing women’s representation since 2013, with the proportion of women among grade A positions increasing by 2.1 percentage points from 2013 to 2018.

Table 5: Proportion (%) of women on boards, members and leaders, 2017 and 2019

Country	2017		2019	
	Leaders	Members, incl. leaders	Leaders	Members, incl. leaders
ES	80.0 (8/10)	38.97	30.0 (3/10)	44.63

Notes: (2019 data): Data are Headcounts (HC). (2017 data): see She Figures 2018 (Figure 6.9). Other: For proportions based on low numbers of headcounts (i.e. <30) the numerator and denominator are presented in brackets (number of women members and leaders compared to the total number of members and leaders, respectively).

Source: Women in Science database, DG Research and Innovation - T5 & T6_questionnaires.

Table 6: Proportion (%) of women among heads of institutions in the Higher Education Sector (HES), 2017 and 2019

Country	2017	2019
ES	8.0	18.0

Notes: (2019 data): Data are Headcounts (HC); Other: only the public Spanish universities are included. (2017 data): see She Figures 2018 (Figure 6.8).

Source: Women in Science database, DG Research and Innovation - T7_questionnaires

Women in Spain are under-represented in decision-making and leadership positions in research, representing less than one-third (30.0%) of board leaders in 2019. This marks a considerable decrease since 2017, although proportions are based on small numbers. There has been progress towards gender parity in boards at member level between 2017 and 2019 with women representing 44.3% of board members in 2019 (Table 5). Both values are above the European average in 2019 (31.1% for members and 24.5% for leaders). However, Spain has a low representation of women among heads of institutions in the HES (less than one-fifth in 2019). This proportion is also lower than the European average of 23.6% in 2019.

Table 7: Research funding success rate differences between women and men, 2016 and 2018

Country	2016 (W-M)	2018 (W-M)
ES	-4.89	-6.0

Notes: (2016 data): She Figures 2018 (Figure 7.13). Other: Values were calculated from headcounts and only from the institutes that provided both applicants and beneficiaries; positive values represent that success rate is higher for women while negative values that success rate is higher for men.

Source: Women in Science database, DG Research and Innovation - T3_questionnaires

Data at the European level show that a higher number of men compared to women were successful in obtaining research funding in 2017 and 2019 (between 3.0 to 3.9 percentage point difference in favor of men). The difference in research funding success rates between women and men in Spain is larger than that of the European average (-4.9 and -6.0 in 2016 and 2018 respectively). Data from She Figures suggest that the gender gap in access to funding has become wider in Spain, increasing by 1.1 percentage points between 2016 and 2018.

Table 8: Average proportion of women among authors on publications in all fields of R&D, 2015-2019

Country	Average proportion of women among authors on publications	Margin of error
ES	0.34	0.16

Notes: Values represent the proportion for publications during the period 2015-2019. A value of 0.5 indicates gender parity. The lower limit of the margin of error corresponds to the value of the proportion if all authors whose gender could not be inferred were men, while the upper limit corresponds to the value of the proportion if all authors whose gender could not be inferred were women. The average proportion of authors to which a gender could be assigned varies. For EU-27, the average proportion of authors for whom gender could be inferred was 0.75, with the lowest value among EU-27 Member States being 0.61 for Croatia and Slovakia and the lowest value among all regions being 0.29 for China. Source: Computed by Elsevier using Scopus data.

Differences in funding success rates for women and men can further exacerbate the gender gap in research and innovation output, as it may lead to a vicious cycle where lower funding could lead to lower publication and innovation output, which in turn could lead to reduced chances of being funded. Data at the European and world level showed that men were more highly represented on publication teams than women between 2015-2019 (average proportion of 0.30 and 0.25 respectively). Following these trends, the average proportion of women on publication teams in Spain was 0.34. Evidently, this is below the proportion representing gender parity (0.5) on publication teams.

Table 9: Women to men ratio of inventorships, 2013-2016 and 2015-2018

Country	2013-2016	2015-2018
ES	0.20	0.23

Notes: (2013-2016 data): see She Figures 2018 (Figure 7.11).
 Source: Computed by using European patent applications (kind codes A1 and A2) in PATSTAT

Similarly, women were under-represented among inventors (on patent applications) in both time periods shown in Table 9. Between 2015-2018, the ratio at the European level was 0.12,

which indicates that for every 100 patent applications held by men, only 12 were held by women. Across both time periods, the women to men ratio of inventorships in Spain was marginally higher than the European level, with the ratio remaining around 0.2 in both time periods examined.

Overall, She Figures 2021 finds that Spain performed above the European average in terms of women to men ratio of inventorships; the proportion of women among doctoral graduates; and the proportion of women on boards. Furthermore, almost all HEIs in Spain have mentioned measures and actions to promote gender equality on their websites. However, Spain has a relatively low share of women among heads of institutions in the HES in comparison to other countries in EU-27. This indicates that targeted improvements are needed to support gender equality within research and innovation in Spain.

GENDER EQUALITY IN RESEARCH AND INNOVATION

https://ec.europa.eu/info/research-and-innovation/strategy/strategy-2020-2024/democracy-and-citizens-rights/gender-equality-research-and-innovation_en

@EUScienceInnov

#SheFigures

#GenderEquality

#UnionOfEquality

#EUResearchArea

References:

EIGE (2021) Gender Equality Index: <https://eige.europa.eu/gender-equality-index/2021/compare-countries>
 ERAC Standing Working Group on Gender in Research and Innovation (SWG GRI) (2021). Gender Equality Plans as a catalyst for change. <https://data.consilium.europa.eu/doc/document/ST-1202-2021-INIT/en/pdf>