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What ETER tells us about gender balance among academic staff in European HEIs

Highlights

- **The majority of European countries and Higher Education Institutions (HEIs) have achieved gender balance (40-60%) among academic staff.**

- **A high proportion of female academic staff, yet female full professors are in the minority.**

- **Strong variation in the proportion of female full professors at institutions within countries.**

- **Institutions with a high proportion of female full professors are often small, and found in fields of science such as nursing, education or art.**

Gender equality and gender mainstreaming are a core objective of the European Research Area's strategy to avoid talent loss, to diversify the views and approaches in research, and to foster excellence. The Conclusions on advancing gender equality in the European Research Area, adopted by the European Council in 2015, reaffirm the commitment of the European Union to achieve gender balance. Yet, data at the national level, published by the She Figures (European Commission, 2015) confirm that, while gender balance has been achieved for students, it remains an issue among academic staff, particularly for full professors.

This brief analyses the proportion of female academic staff and full professors, defined as those at the top of the academic hierarchy, while focusing on the variations between HEIs within countries. Further, this brief correlates the proportion of women among academic staff to the proportion among full professors, and investigates the characteristics of HEIs where the majority of full professors are women. These data, therefore, provide a more in-depth view of the gender (in)balances that occur at the institutional level, in association with other institutional characteristics, which may be useful in informing national and European policies.
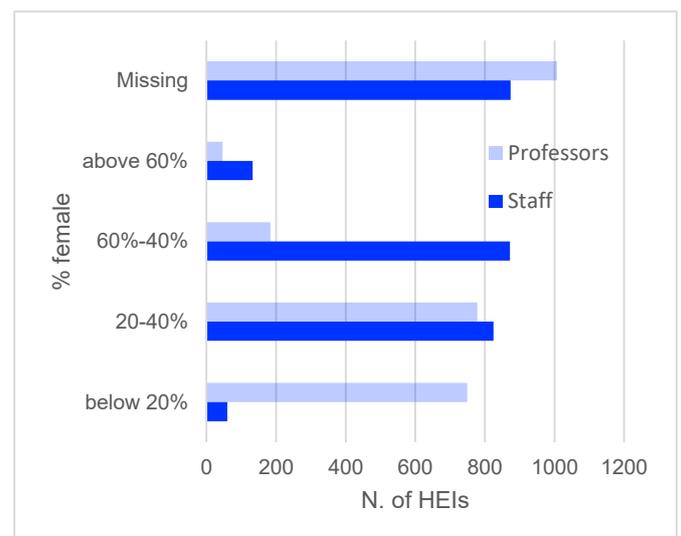

Figure 1. Share of female academic staff and professors

Year 2014, N= 2,764.

Analyzing gender balance in European HEIs

The analysis presented here is based on the gender balance in academia, and includes data available for 27 European countries in the ETER database. Gender balance is defined as having a minimum of 40% of both sexes (European Commission 2010). Figure 1 shows that more than half of the HEIs included in the data set have achieved gender balance among academic staff, whereas only a minority (13%) of HEIs has achieved gender balance for female full professors.

Gender balance for academic staff

Figure 2 shows that in most countries covered by ETER, the gender balance for academic staff has been achieved in most HEIs. There are only a few countries where less than half of the HEIs attain the 40% threshold of female academic staff, i.e. Czech Republic (41%), Germany (31%), France (32%, data only for universities), Greece (9%), Italy (23%) and Macedonia (44%). On the contrary, gender balance has been achieved by more than four-fifths of the HEIs in Belgium, Finland, Ireland, Lithuania, Latvia, Netherlands, Norway, Serbia and the UK.

While these data are in broad agreement with the She Figures, it should be noted that there is variability within countries in terms of the proportions of female academic staff from one institution to another. Latvia has the greatest variability among institutions, ranging from 49% (lower quartile) to 76% (upper quartile). At the other end of the scale, Spain, Ireland and Serbia show low variability. In the case of Spain, only data from universities is represented here, meaning the numbers do not reflect the entire higher education sector.

Female full professors

On proportions of female full professors, the ETER data displays the following patterns (figure 3, next page).

a) The *average proportion of female full professors* is distinctly lower

than the average proportion of female academic staff, with the median proportion for HEIs within a country ranging from 15 to 35% (figure 2). Latvia, Lithuania and the UK exceed the 30% threshold for female full professors, while Greece, Croatia, the Netherlands, Poland and Portugal all have around 15%. Only a few countries showed a correlation between averages of female academic staff and a high proportion of female full professors.

b) *Differences between HEIs*. Compared to academic staff, the figures on full professors also show a much greater variability among institutions within countries. The distance between the first and the third quartile is high in many cases, particularly for Croatia, Latvia, Lithuania and Portugal. There are only four countries with compressed distributions, indicating small differences between institutions: Spain, Ireland, the Netherlands and Slovakia.

c) *HEIs achieving gender balance*. In most countries, just a handful of HEIs achieved gender balance for female full professors. In eight countries (BG, CH, HR, LT LV, RO, RS and UK), more than one out of every five HEIs has reached the 40% threshold. Some of these countries have a high proportion of female academic staff; in others this pattern is generated by the presence of specialised schools in fields with a large presence of women, like health and education.

d) *HEIs with a low or high proportion of female full professors*. In most countries, there are institutions, which have no female full professors, and in five countries (Bulgaria, Italy, Latvia, Norway and Sweden) there are institutions where all full professors are female. Common among all female-only institutions is that they are very small and the number of female full professors, in most cases is less than five.

Boxplots (Figures 2 and 3) are a way of representing the distribution of HEI values within groups. The upper and lower ends of the boxes represent 75% and 25% of HEIs, while the black line is the median (50% of the HEIs above the line). Stars and circles are extreme values and outliers, i.e. HEIs with a level of mobility much higher than the average. Taller boxes mean that HEIs in a country are more diverse.
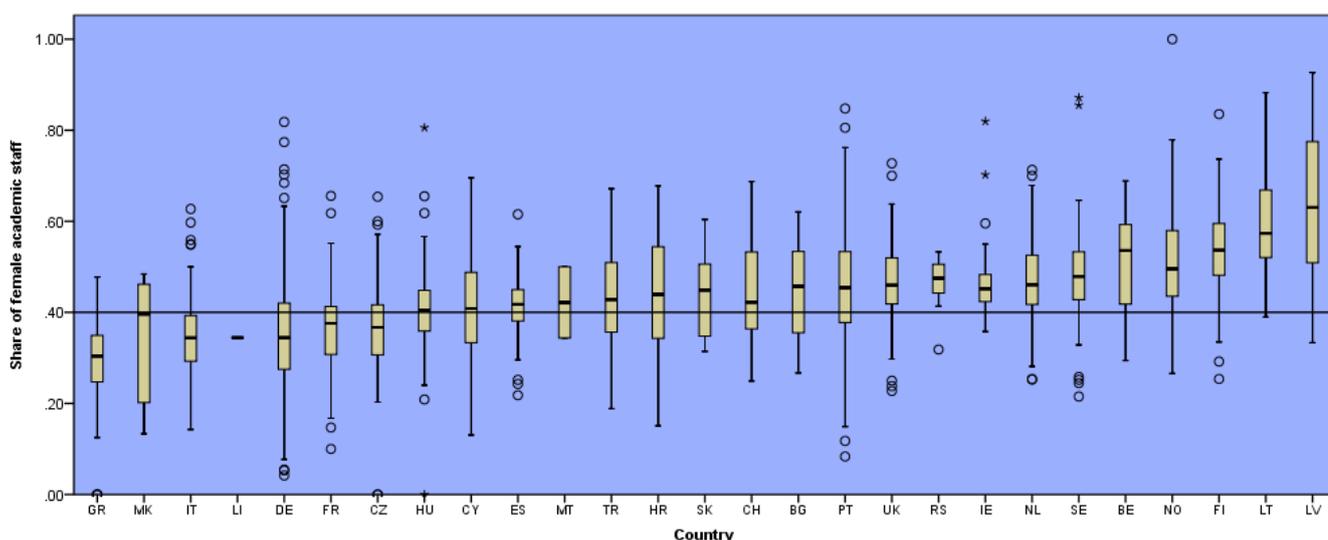

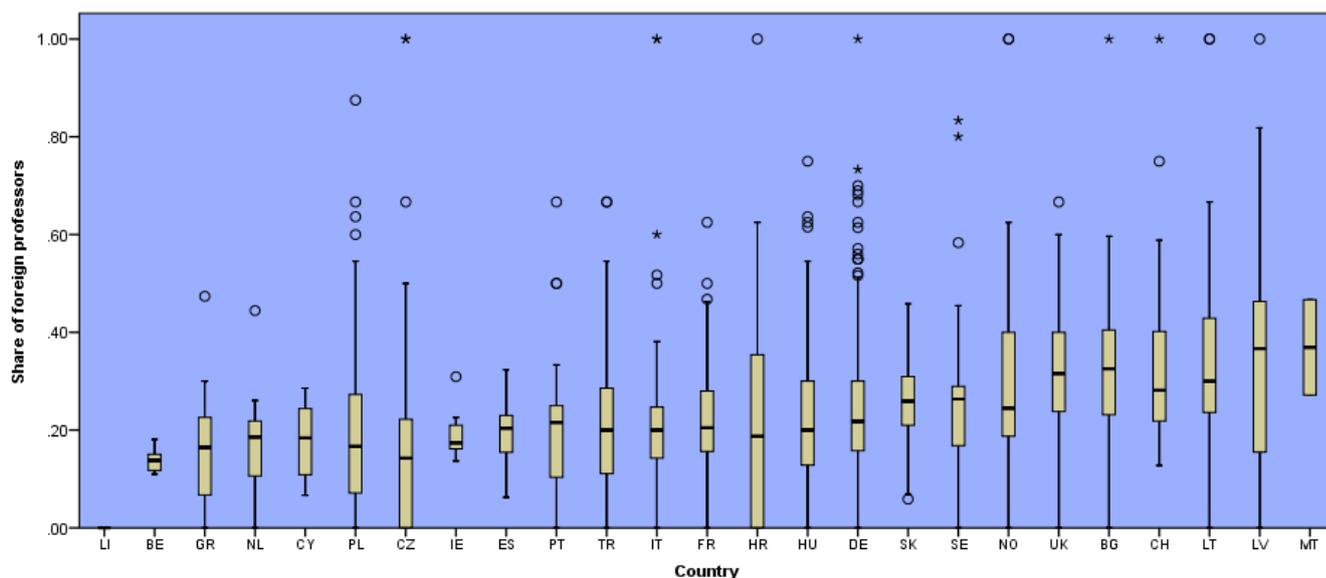**Figure 2.** HEI by country and share of female academic staff

Figure 3. HEI by country and share of female professors

More female academics in health and education

A closer inspection shows that higher education institutions serving health – particularly nursing and education – and both regular teacher training and pre-school teachers, have a higher number of female academic staff. This is evident by looking to the institutions with the highest proportion of female academic staff. ETER includes 35 HEIs in which at least three out of four academic staff members are female. Only a few of them have more than 100 academic staff. There are

several institutions in Latvia on the list, which can likely be linked to the generally high proportion of female academic staff in Latvian HEIs, which is evident in figure 2.

Table 1 shows institutions with a high proportion of female full professors, though institutions with only women were left out of the table, as there were only a few (in many cases there was only one full professor at the institution). The list of institutions having more than 60% female full professors were mainly small institutions – apart from three that have less than 150 total academic staff, and several with an academic staff of less than 50. The larger institutions, Alice Salomon Hochschule Berlin and Protestant Fachhochschule Berlin, are institutions providing education in nursing and social work. The list is also characterised by schools of education and art institutions. Hence, the institutions are within fields of science where there commonly are more women. However, countries that have a higher proportion of female full professors on average do not dominate this list.

If we instead look at large institutions, defined as those with an academic staff of more than 5000, among countries where data is available, there is only one institution among 27 countries that have a majority of female staff. 55% of all staff is female at The Open University in the UK, and 34% of their full professors are female. Other large institutions with a high proportion of female staff (45-47%) are University of Hamburg, Ludwig-Maximilians-Universität München and University of Cologne in Germany, and University of Barcelona and Complutense University of Madrid in Spain. However, the proportions of female full professors at these universities vary between 19% (Ludwig-Maximilians-Universität München) and 28% (University of Hamburg).

These analyses indicate that the correlation between having a high proportion of female academic staff and a high proportion of female full professors is not strong. Rather, it seems there are country or contextual explanations for variations in the proportion of females at different levels of academia.

CY	Institution	Number of full professors (HC	Share of female professors
LV	Riga Teacher Training and Educational Management Academy	22	0.73
DE	Fliedner Fachhochschule Düsseldorf	15	0.67
DE	Medical School Berlin, H für Gesundheit und Medizin	10	0.67
DE	Alice Salomon Hochschule Berlin	58	0.67
DE	Protestant Fachhochschule Berlin	44	0.67
DE	Evangelische Hochschule Ludwigsburg	24	0.67
UK	Writtle College	15	0.63
HU	Apor Vilmos Catholic College	11	0.63
PL	College of Therapy in Poznań	11	0.63

Table 1. HEI with a high share of female professors and at least 10 professors

Gender data in ETER. Potential use

The ETER dataset provides information on the gender breakdown for students, graduates and for academic staff. More specifically, the following variables are included:

The number of male, female and unclassified among students and graduates for educational levels ISCED 5 (diploma), 6 (bachelor), 7 (master) and 8 (PhD), complying with Eurostat definitions and standards. The completeness of data is high and ranges between 85% and 95%.

The completeness of data among the number of male, female and unclassified among academic staff and among full professors – defined as the top-level of the academic hierarchy (grade A of the She Figures classification of academic staff) – is 74% for staff and 83% for full professors.

In this brief, we focus on staff data, as they carry a more substantive policy interest, given the remaining academic gender imbalance, particularly among full professors.

More precisely, the 2014 edition used in this brief includes information on gender for 27 countries; no data on gender are available for AT, DK, EE, FI, IS, ME, RO and Sl, while for MK data are only available for staff and for PL only full professors. The number of full professors in Serbia (RS) does not fully correspond to the definitions, and has therefore been excluded from the analysis, while the French data only includes universities.

Despite these limitations, the ETER dataset provides a fine-grained view of institutional gender balance, which complements the She Figures data. As the analyses in this brief has highlighted, the ETER data provides a unique opportunity to look at institutional differences in gender balance by combining the data with information on the HEI size, characteristics and subject domain..

ETER in a nutshell

The European Tertiary Education Register (ETER) database provides a core set of data on a subset of HEIs that issue degrees at the tertiary level. ETER is a project funded by the European Commission's Directorate General for Education and Culture in close collaboration with EUROSTAT and the National Statistical Authorities in the participating countries. ETER provides information on more than 2,465 HEIs in 32 countries and covers the years 2011 to 2013; data are available for EU-28 countries (except the French-speaking region of Belgium), as well as for Slovenia and Romania, plus the Former Yugoslav Republic of Macedonia, Iceland, Liechtenstein, Norway, Serbia and Switzerland.

ETER provides the following information on higher education institutions (HEIs):

- Descriptors identify the HEIs and their official status, and provide information on foundation and history.

- Geographical information localizes HEIs in terms of region, city and geographical coordinates and provides information on multi-location campuses.

- Staff data categorizes HEI personnel by academic and non-academic; for academic staff, information is provided on gender, nationality, scientific field, and the number of professors.

- Numbers of students and graduates broken down by educational level (diploma, bachelor, master), field, gender, nationality and mobility.

- Financial data includes total revenue and a breakdown between core and third party funding, as well as student fees and the composition of expenditures.

- R&D activities include the number of PhD students and graduates, as well as the volume of R&D expenditures.

Most ETER data can be downloaded from the project website (www.eter-project.com) and used for analytical purposes, making ETER a truly common resource for policy-makers, administrators and scholars. A small portion of ETER data is only available for research purposes after signing a non-disclosure agreement.

Key references

- **Rees, T. (2002). National Policies on Women and Science in Europe. A report for The Helsinki Group on Women and Science and the European Commission. Brussels: European Commission.**

- **European Commission (2010): Stocktaking 10 years of "Women in Science" policy by the European Commission 1999-2009. Luxembourg: Publications Office of the European Union.**

- **European Commission (2015): She Figures 2015. Luxembourg: Publications Office of the European Union.**