GEECCO Project

RPO UNIRC

Gender Statistics 2019

of the University Mediterranea

Reggio Calabria

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Introduction

This document analyzes and evaluates from a gender perspective the status, choices and configuration of the structure under analysis.

The document proposed herein takes up and updates the Gender data of the University Mediterranea of Reggio Calabria and examines the composition of the groups of people that make up the academic community (the student body, the teaching staff and the technical-administrative staff), also evaluating the temporal variations due to the results of previous analyses (BdG years 2015-2018).

The period of time analyzed (6 years) is not sufficiently extended to allow the elaboration of definitive conclusions, however, some observations on the trends observed may be useful for future planning of university policies and strategies.

First of all, if the student body as a whole shows a uniform distribution by gender stable over the four years analyzed, the gap between students and female students in the areas of Engineering and Agriculture (STEM areas - Science, Technology, Engineering and Mathematics) is instead widening.

As far as academic careers are concerned, the percentage distribution by gender has not changed substantially: women still make up about 30% of the teaching staff, although the latter is characterized by an overall decrease of about 10% in the period 2015-2020. The career spread has also remained almost unchanged with a reduction in the number of women in the highest qualifications.

On the other hand, the distribution by gender within the technical-administrative staff is more homogeneous, with less pronounced differences in career progression.

The picture that emerges from the analysis confirms to be useful to define the effective participation of women and men in the activities of the various structures, groups and bodies of the University, also in order to provide an initial support for the verification of the effectiveness of the actions and policies that may be implemented or to be planned in view of a progressive removal of possible obstacles to the full achievement of equal opportunities for all those involved. These actions can constitute a valid contribution to the achievement of the University's improvement objectives.

1 The used indicators

The following analyses are the result of data processing provided by the University's Special Statistical and Evaluation Support Service, aimed at defining synthetic indicators consistent with the She Figures program (She Figures Handbook 2018, European Commission - Directorate-General for Research and Innovation - Horizon 2020 Science with and for Society).

In particular, the indicators used for the analyses reported below refer to the percentage gender composition of the different categories of people working within the University (student component, teaching staff, technical-administrative staff) and also consider the hierarchical roles of women and men within the different groups.

2 The organization

The University Mediterranea is currently divided into six departments:

1. Department of Agriculture
2. Department of Architecture and Territory (DARTE)
3. Department of Law, Economics and Human Sciences (DiGiES)
4. Department of Civil Engineering, Energy, Environment and Materials (DICEAM)
5. Department of Information, Infrastructure and Sustainable Energy Engineering (DIIES)
6. Department of Heritage, Architecture and Urban Planning (PAU)

La ripartizione dei dipartimenti per area di studi è riportata in Table 1.

Table 1. Distribution of departments by area of study.

Area di studi	Dipartimento
Agriculture	Department of Agriculture
Architecture	Department of Architecture and Territory (DARTE)
	Department of Heritage, Architecture and Urban Planning (PAU)
Law and economics	Department of Law Economics and Social Science (DiGiES)
Engineering	Department of Civil Engineering, Energy, Environment and Materials (DICEAM)
	Department of Information, Infrastructure and Sustainable Energy Engineering (DIIES)

3 The University Mediterranea: gender composition

3.1 An overview

The data reported in Table 2 and in Figure 1 show an overall count of people studying and working at the University Mediterranea in the year 2019.

At this level of aggregation, the component that appears most unbalanced with reference to the percentage composition by gender is the teaching staff, followed by the Technical-Administrative staff.

On the contrary, if we look at the student category, the most numerous, the data do not show any particular criticality with reference to the gender perspective. As will be explained in more detail in the following paragraphs, the analyses lead to different conclusions if the student component as a whole is further disaggregated by identifying homogeneous categories within it (distinguished by areas of study, departments of reference, etc.).

Table1. Presence in University, by gender - year 2019.

Category	F	M	Total
BSC, MSC, 5 Years Students	2637	2450	5087
Specialization Schools Students	23	12	35
PhD students	49	71	120
Teaching Staff	82	165	247
Technical-Administrative Staff	84	96	180
Total	**2875**	**2794**	**5669**

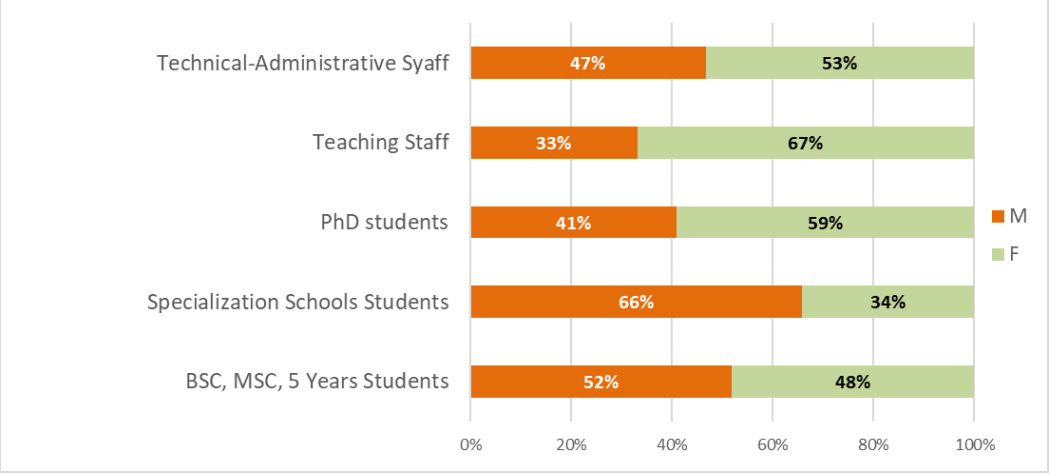

Figure 1 – Percentage distribution of people by gender at the University Mediterranea of Reggio Calabria - year 2019.

With respect to the temporal evolution of the situation in the University, regardless of the number of categories of people analyzed, which over time has often undergone an appreciable contraction (Table 3), the percentage distribution by gender (Figure 2, Figure 3) in all the cases examined does not seem to have undergone significant variations.

In particular, the percentage distribution by gender of the student body, teaching staff and administrative technicians, can be considered almost stable in the five-year period 2015-2019 unless there is a slight variation of only a few percentage points, regarding teaching staff.

With respect to the percentage distribution, fluctuations can be seen in the area of PhDs and research grants.

Table 2. The university by gender - years 2015-2019.

anno	2015		2016		2017		2018		2019	
Category	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**
BSC, MSC, 5 Years Students	3251	3187	3092	3070	2657	2695	2611	2572	2637	2450
I Level Master Students			1	7	1	6				
II Level master Students			23	15						
Specialization Schools Students	74	39	59	30	42	17	30	19	23	12
PhD Students	52	55	54	62	66	66	80	51	49	71
Contract researchers	29	21	24	32	22	16	23	15	22	16
Teaching Staff	83	190	80	175	80	167	82	164	82	165
Technical-Administrative Staff	89	106	89	105	88	105	85	98	84	96
Total	**3578**	**3598**	**3422**	**3496**	**2956**	**3072**	**2911**	**2919**	**2897**	**2820**

Figure 2 – Percentage of women in various academic roles in the years 2015-2019.

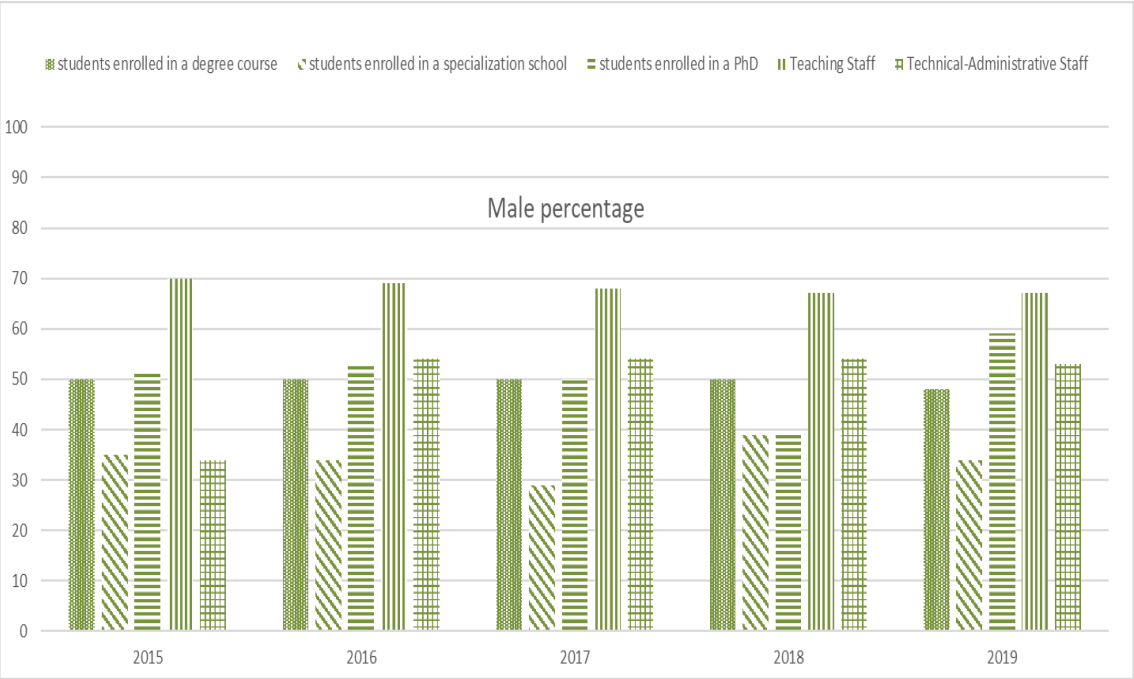

Figure 3 – Percentage of men in various academic roles in the years 2015-2019.

3.2 Students

The data reported in the following graphs are related to students enrolled in a course (three-year, two-year, single-cycle master's degree) as of March 31, 2020.

As already pointed out in the analysis concerning the previous three years, the presence of women decreases drastically in the cultural areas of Engineering and Agriculture, while it appears almost equal in the area of Architecture and definitely dominant in the area of Law and Economics.

Also, the data disaggregated by department reflect the condition just described.

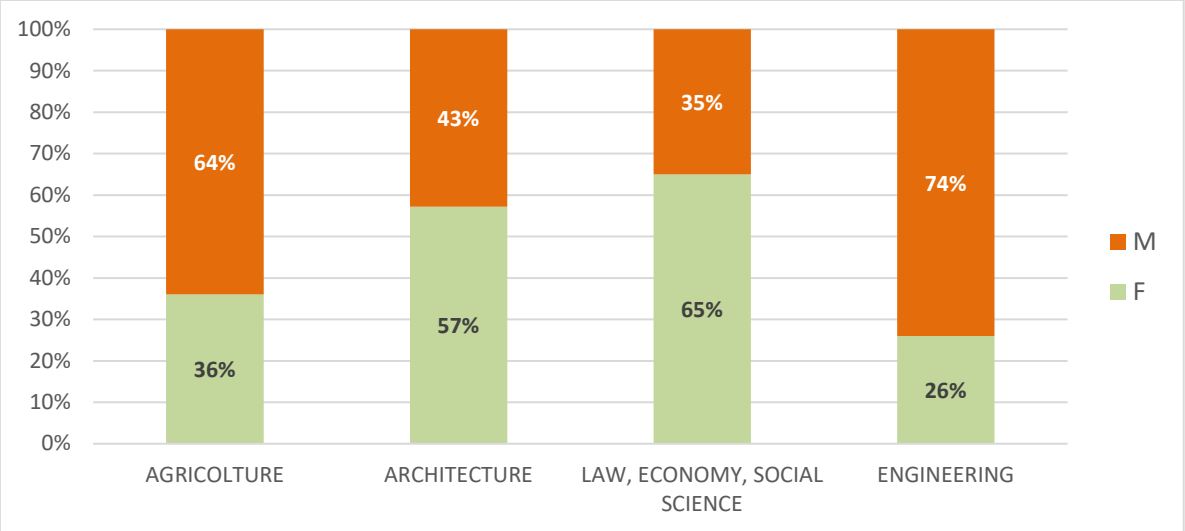

Figure 4 – Percentage composition of enrolments by area of study, and gender.

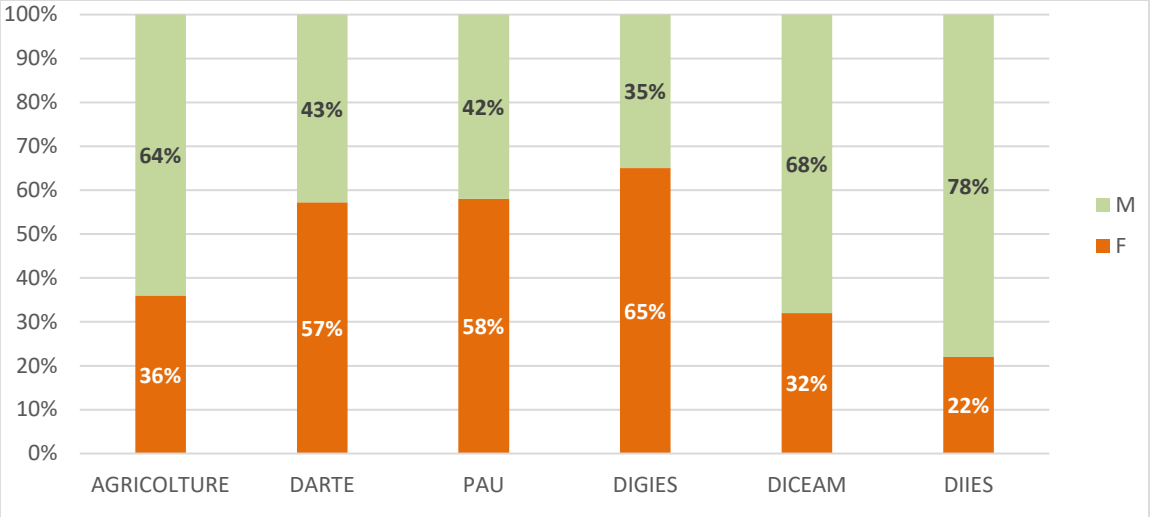

Figure 5 – Percentage composition of entries by department and gender.

3.2.1 Graduation

In order to analyze the aptitude to complete the course of study, data are reported on the number of those who graduated within the regular duration of their course of study (Figure 6 and Figure 7).

One of the most interesting aspects to be reported is the fact that the percentage of out-regular of graduate degrees is different between the male and female components.

This phenomenon also affects most of the individual departments in the different areas.

Table 3. Graduation in 2019 - Distribution by gender.

Graduation	F	M	Total
Regular	279	267	546
Out-regular	91	115	206
Total	**370**	**382**	**752**

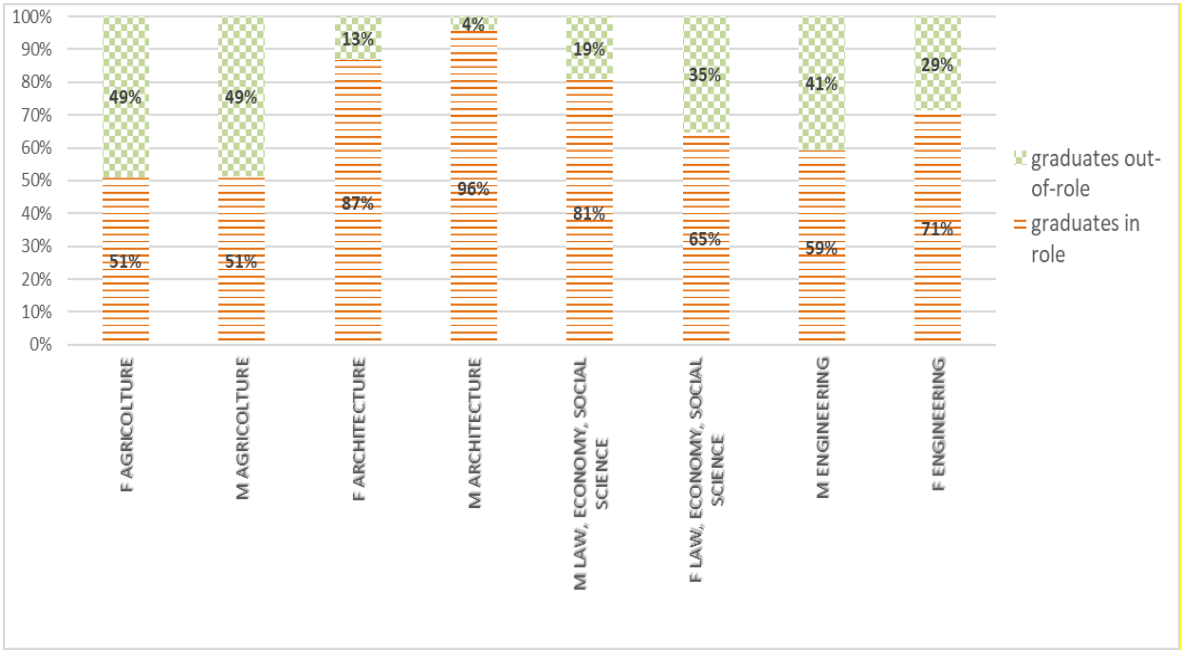

Figure 6 – Percentage composition of degree achievement by area of study and gender.

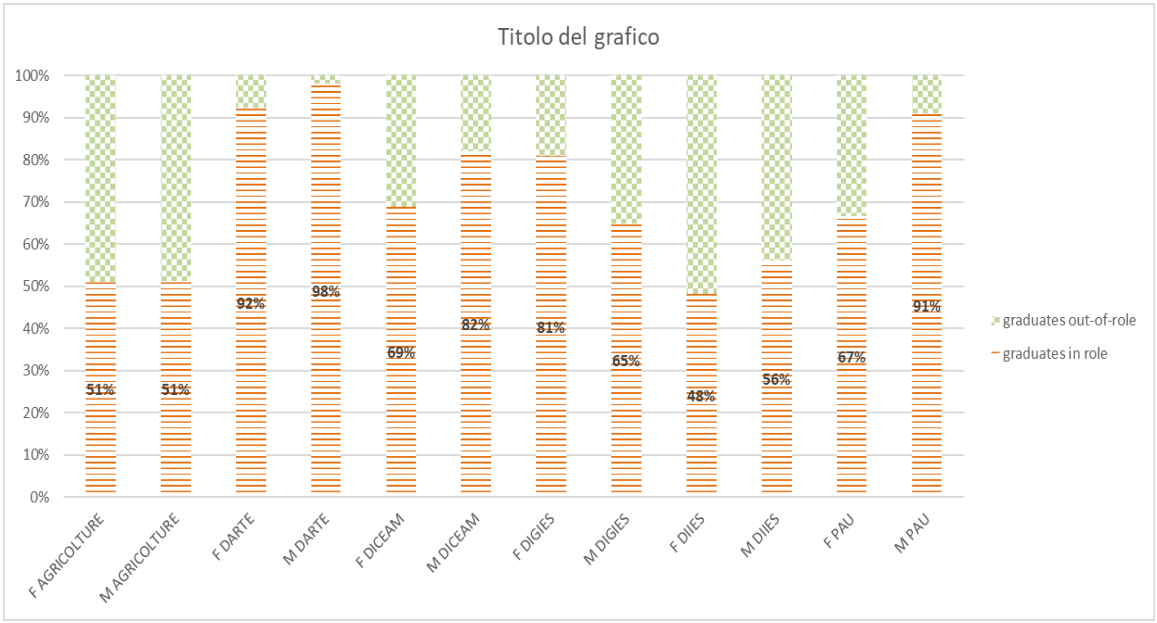

Figure 7 – Percentage composition of degree achievement by department and gender.

3.3 PhD

With regard to the enrolment in PhD courses (Figure 8 and Figure 9), there is an equal presence of women and men in the area of engineering and agriculture. The presence of women in the areas of Architecture and Law, Economics and Social Science is instead prevalent.

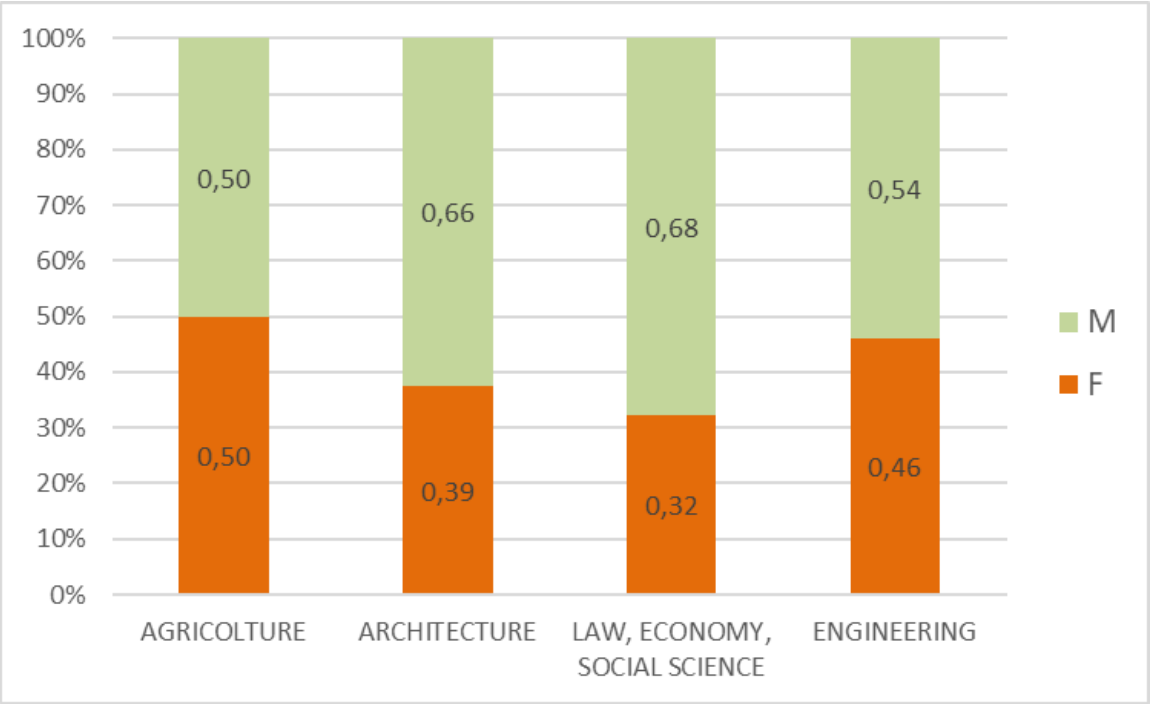

Figure 8 – Percentage composition of PhD course enrolments by area of study and gender.

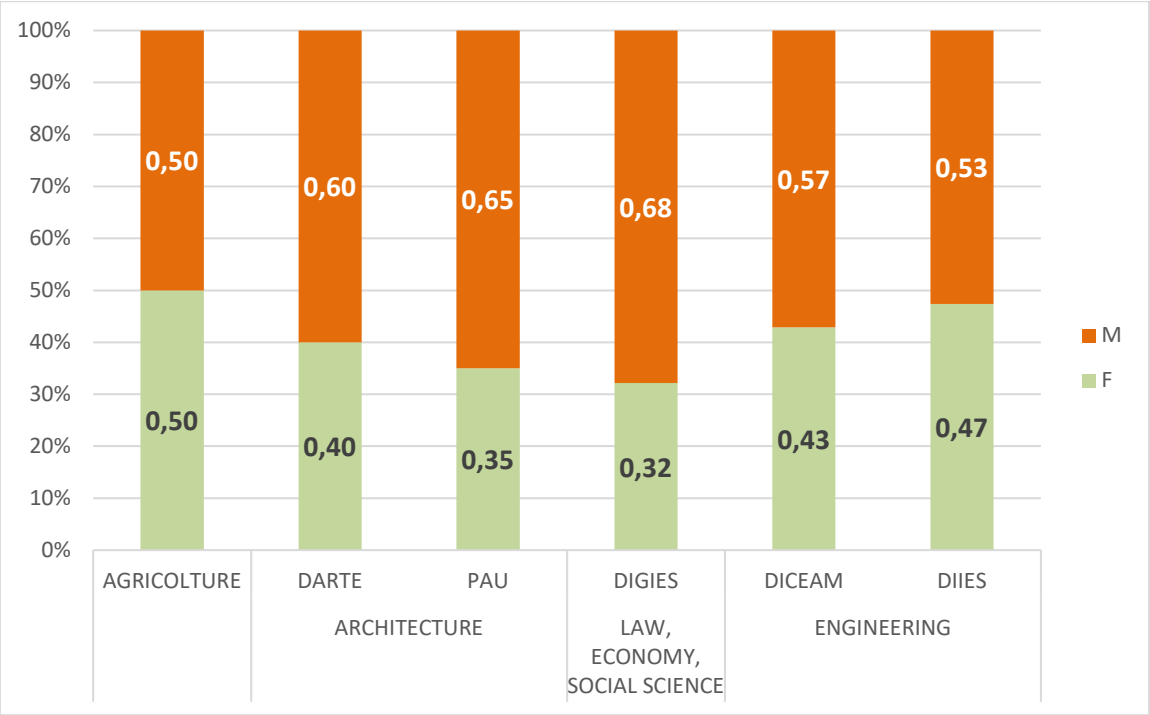

Figure 9 – Percentage composition of PhD course enrolments by department and gender.

With reference to the area of engineering, the phenomenon is essentially determined by the inscriptions concerning the DICEAM department which see a percentage of doctoral students equal to 57%.

The engineering area is also characterized this year by an equal distribution by gender within the group of people who have obtained the PhD title. It is necessary to remember,

however, that the small sample does not allow to draw general conclusions or to establish with certainty the occurrence of a consolidated trend.

Table 4. PhD in 2019 - Distribution by area and gender.

AREAS	F	M	TOTAL
AGRICOLTURE			0
ARCHITECTURE	7	6	13
LAW, ECONOMY, SOCIAL SCIENCE	6	3	9
ENGINEERING	1	14	15
TOTAL	**14**	**23**	**37**

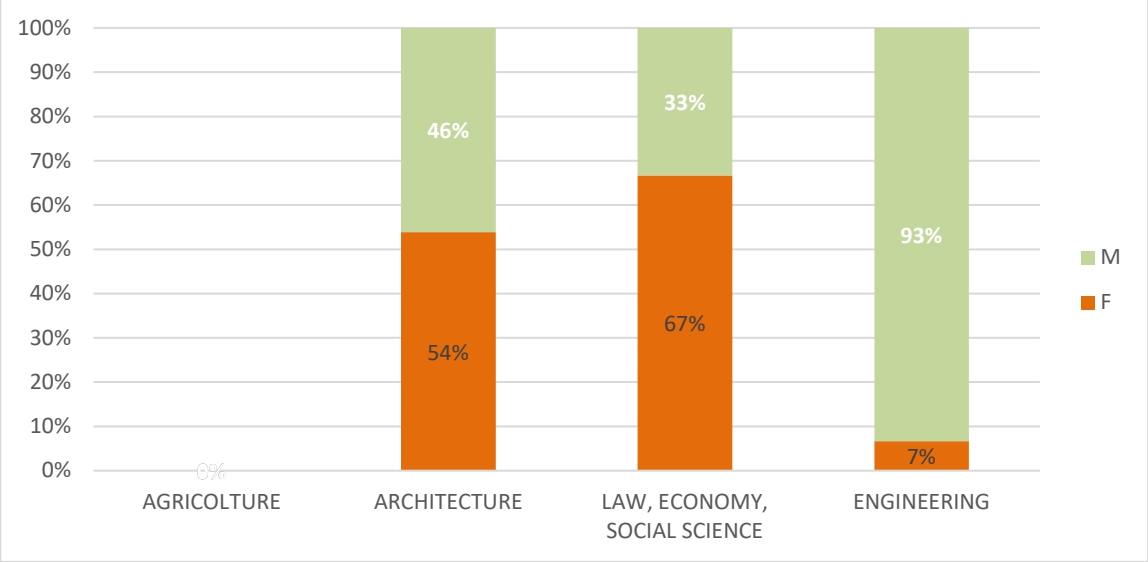

Figure 10 – Percentage composition of PhD by area and gender.

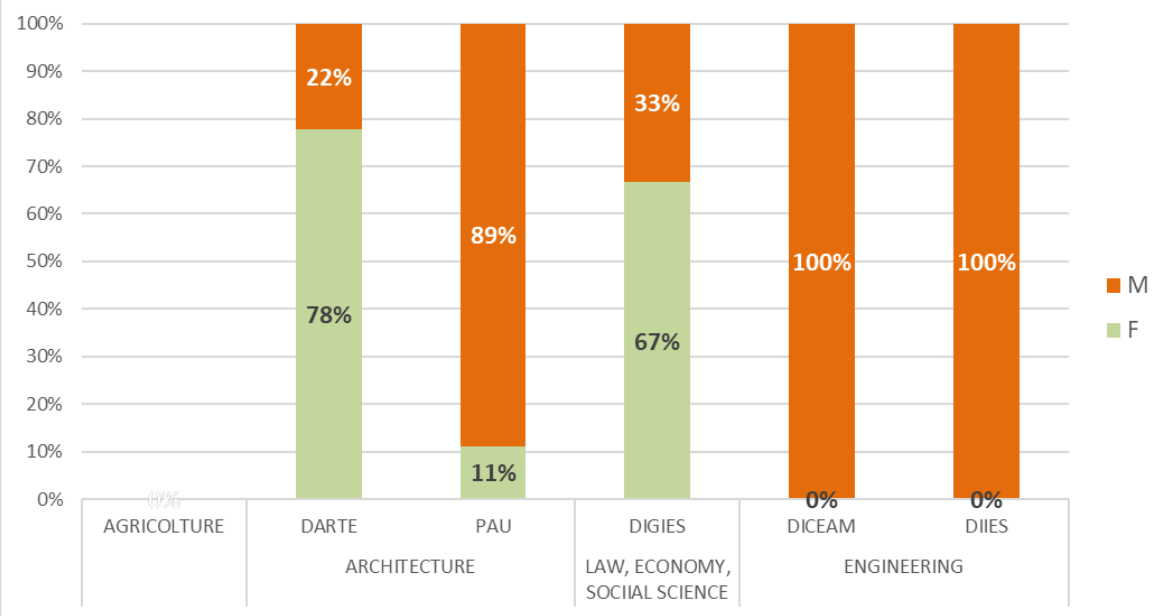

Figure 11 – Percentage composition of PhD by department and gender.

3.4 Technical-Administrative Staff

The technical-administrative staff (PTA) is characterized by an appreciable presence of the female gender that remains stable or even becomes more relevant (Table 6; Figure 12) as the hierarchical scale progresses. As far as management roles are concerned, the only personnel unit present belongs to the male gender.

Table 5. Technical-administrative staff, by category and gender.

Category	F	M	Total
B	4	4	8
C	42	55	97
D	31	29	60
EP	6	5	11
Manager		1	1
Manager for Contract		1	1
Language expert (CEL)	1	1	2
Total	**80**	**92**	**172**

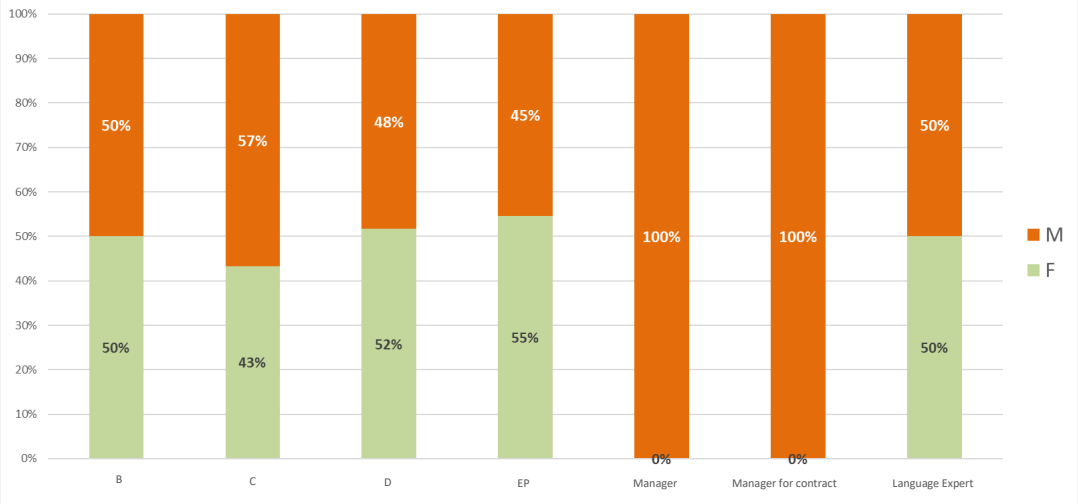

Figure 12 – Percentage composition of Technical and Administrative Staff by category and gender.

3.5 Teaching Staff

The research staff includes the teaching staff - divided into the first (PO) and second (PA) bands - researchers and researchers on permanent (OR) and temporary contracts (RTD).

The following graphs show the breakdown of teaching staff by gender.

An examination of the data (Figure 13) shows that the percentage of women on the University's research staff is in line with the national average value corresponding to the

year 2014 (MIUR Focus "Women's careers in the university sector", February 2016) for all academic groups.

This percentage also decreases significantly towards the top step of the hierarchical scale (full professor).

Table 6. Teaching staff by category and gender.

Category	F	M	Total
Full Professor (PO)	10	40	50
Professor (PA)	25	62	87
Assistant Professor (RU)	37	61	98
Temporary Researcher (RTD)	15	16	31
Total	**87**	**179**	**266**

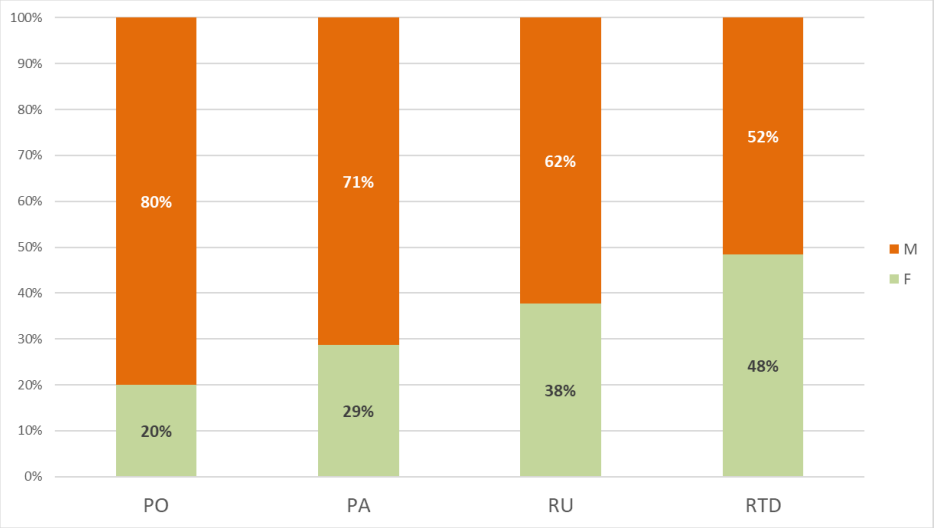

Figura 13 – Percentage composition of teaching and research staff by gender and academic brackets.

With regard to the distribution by study areas (Figure 14, Figure 15), it can be noted that, with the exception of the area of Architecture which sees a slightly higher female presence, the gender distribution appears to be substantially homogeneous and characterized by a percentage of women that remains below 40%.

Moreover, if we exclude the Architecture area, the first band of the teaching staff (PO) is characterized by a female presence that in no case exceeds 13%.

The situation described has consequences, obviously on the configuration of the individual departments (Figure 16) pertaining to the various areas.

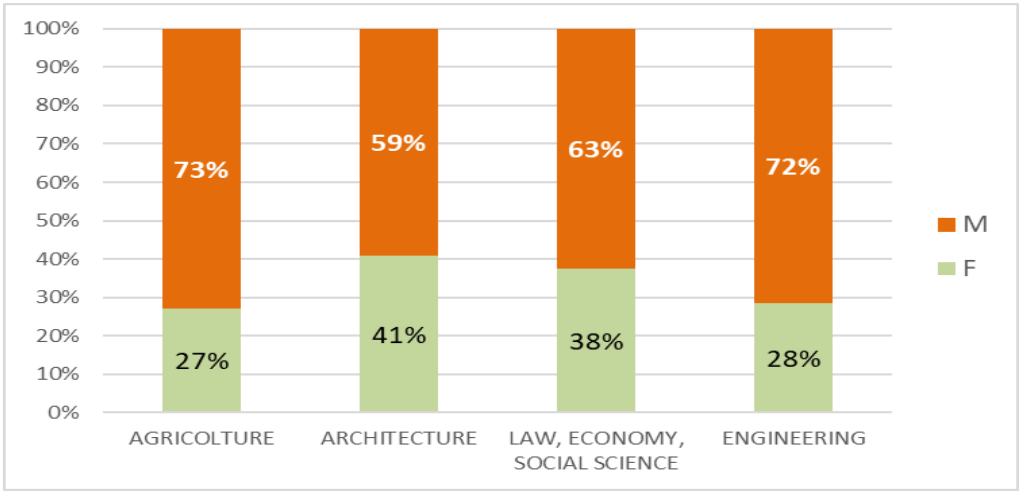

Figure 14 – Percentage composition of teaching staff and researcher by area and gender.

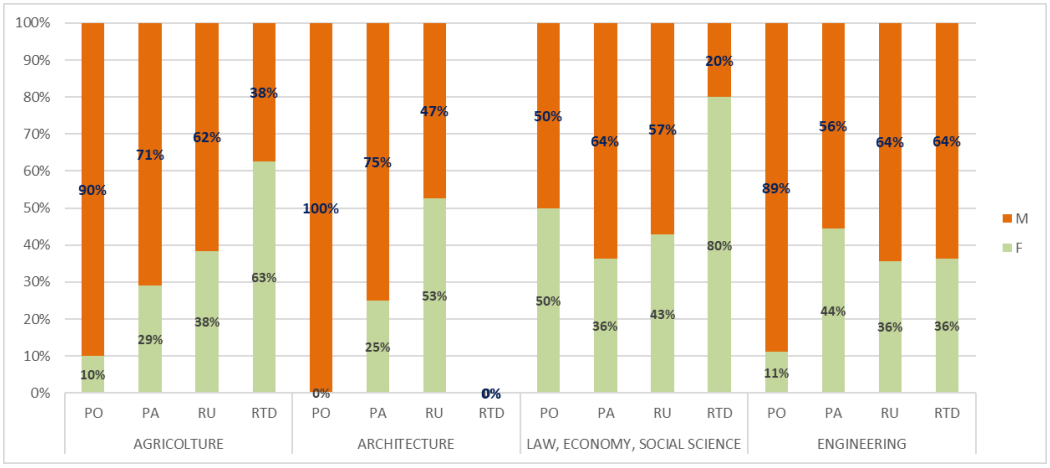

Figure 15 – Percentage composition of teaching staff and researcher by area, academic brackets and gender.

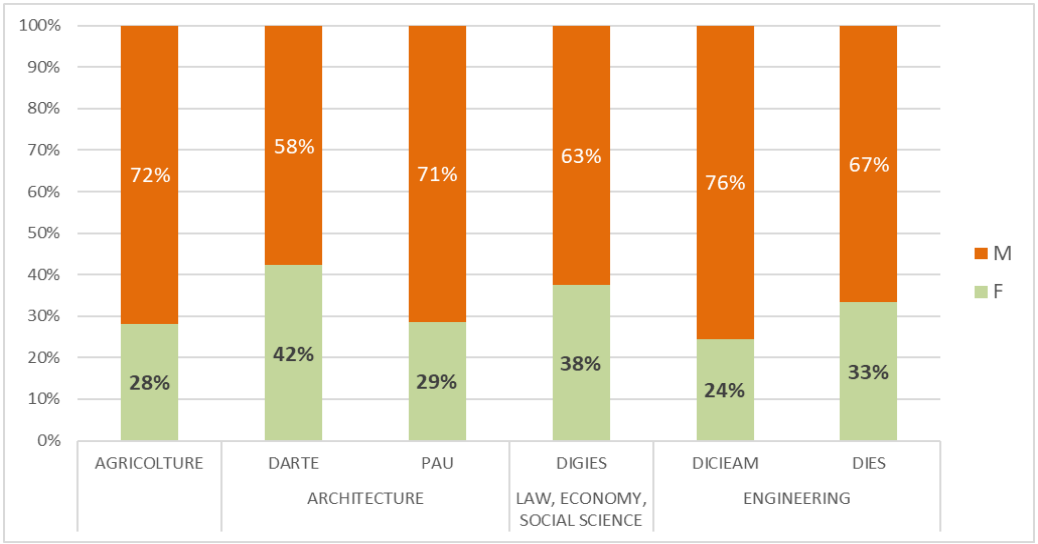

Figure 16 – Percentage composition of teaching and research staff by department and gender.

The presence of women is always reduced even when the data are analyzed by age group (Figure 17). From this point of view, moreover, the presence of women appears to be reduced in the highest hierarchical bands of academic progression, which also appear to be characterized by the highest age groups.

It is important to underline that in the research staff (both RU and RTD) the female presence reaches and exceeds 50% in the 35-44 years old age group (Figure 17), testifying, perhaps, to a reversal of the trend whose stability will have to be verified in the coming years.

In any case, the greater presence of women in the lower age groups of research staff concerns almost all the areas present in the university, with the exception of the architecture area (Figure 18).

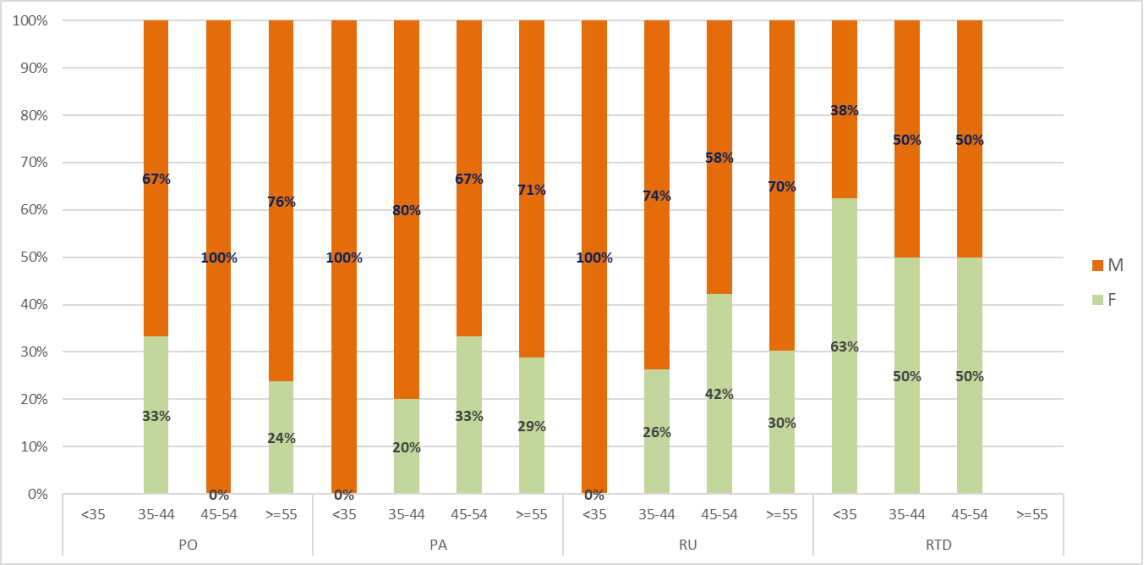

Figure 17 – Percentage composition of teaching and research staff by age, academic category and gender.

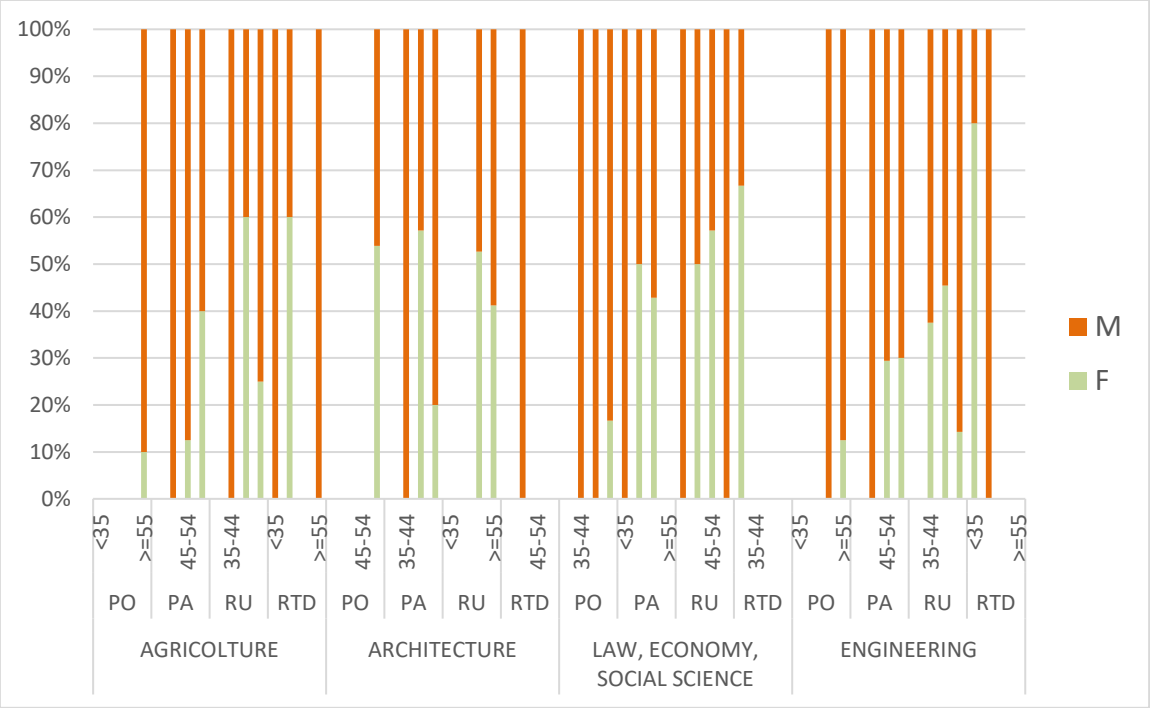

Figure 18 – Percentage composition of teaching and research staff by age, academic category, area and gender.

4 Statistical Indexes

4.1 Academic career

In this case, the percentage of men and women at the different stages that make up a typical academic career progression from enrolment in a degree course to the category of full professor is analyzed.

In order to define indicators, the She figures program (*She Figures* 2018, European Commission, Directorate-General for Research and Innovation, Horizon 2020 Science with and for Society) articulates the academic career in levels or degrees, whose correspondence with national categories is shown in Table 8.

Table 7. Correspondence between academic groups according to the program "*she figures*".

Academic grade in accord with *She figures*	**Italian academic positions**
A	Full Professor (PO)
B	Professor (PA)
C	Assistant Professor/Researcher Permanent (RU) and Temporary (RTD)

The distribution by gender at different stages of career is shown in Figure 19, which shows the increasing male component towards the higher grades.

The range described, although in line with the European trend (http://ustat.miur.it/indicatori/indicatori-internazionali-progetto-she-figures/), is strongly divided from grade C (Researcher).

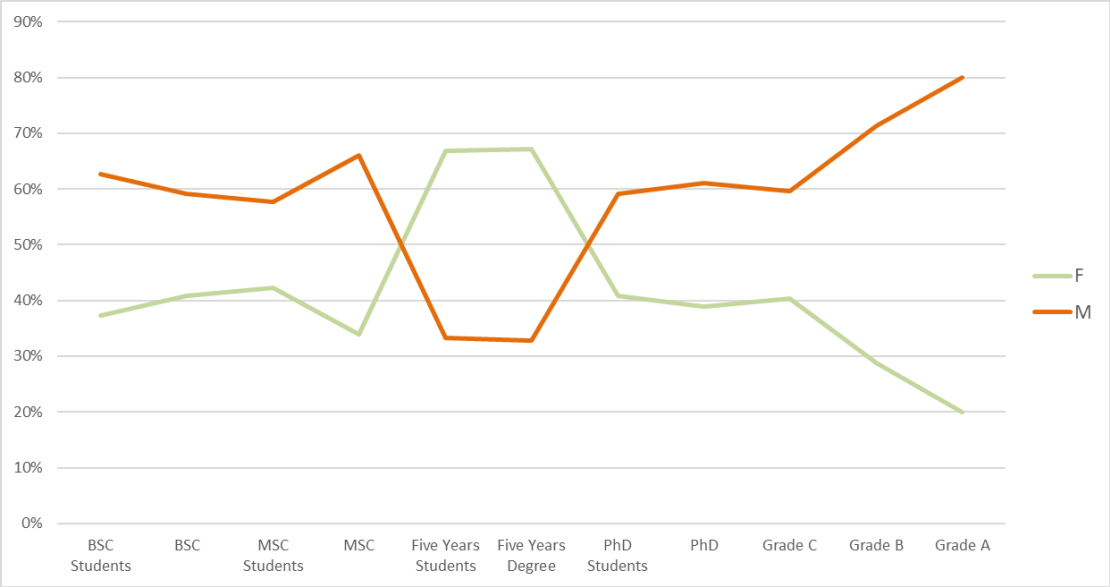

Figure 19 – Proportion of men and women in a typical academic career: teaching staff and researcher.

4.2 Glass Ceiling Index

The term glass ceiling is commonly used to describe the phenomenon that tends to limit women's careers to positions of high responsibility, making them, therefore, confined by a sort of invisible symbolic barrier.

Whatever its cause, the most widely used index to measure the intensity of this phenomenon, especially at the academic level (MIUR Focus "Women's careers in the university sector", February 2016), is the Glass Ceiling Index (GCI).

The index is defined as follows (She Figures Handbook 2018, European Commission - Directorate-General for Research and Innovation - Horizon 2020 Science with and for Society):

$$GCI = \frac{\frac{F_{RTD} + F_{RU} + F_{PA} + F_{PO}}{(F_{RTD} + F_{RU} + F_{PA} + F_{PO}) + (M_{RTD} + M_{RU} + M_{PA} + M_{PO})}}{\frac{F_{PO}}{F_{PO} + M_{PO}}}$$

where: F indicates the number of female subjects, M the number of male subjects, while the subscripts (RDT, RU, PA, PO) identify the various academic bands defined above.

By virtue of its definition, the index measures the probability of women to reach the highest qualification of the academic hierarchy by comparing it to the actual number of women within all the academic bands present. In other words, the GCI is a kind of measure of the real opportunities that the context examined offers to women in the process that allows them to proceed in the hierarchical scale of their academic career. Moreover, being a relative (normalized) index, it makes it possible to compare different configurations and realities of different sizes and types.

With regard to the values that the index can assume, the following conditions may occur:

GCI=1 no gender difference in the chances of reaching the highest position

GCI<1 over-representation of women in the highest position

GCI>1 under-representation of women in the highest position

For the University Mediterranea of Reggio Calabria, for the year 2017, the index assumes the value:

$$CGI = \frac{0.333}{0.204} = 1.63$$

Equal to the value of 1.63 evaluated at the university in the previous year 2018, with that of 1.62 and 1.64 evaluated, for the years 2017 and 2016, within the European Union (SHE FIGURES 2018, European Commission, Directorate-General for Research and Innovation, Horizon 2020 Science with and for Society) and slightly lower than that evaluated for the same year 2016, at national level (http://ustat.miur.it/indicatori/indicatori-internazionali-progetto-she-figures/), equal to 1.68.

However, different results are obtained if the analysis is carried out by distinguishing the different areas of study (Table 9).

Table 8. Glass Ceiling Index in correspondence with the different thematic areas.

Area	GCI
Agricolture	3.27
Architecture	0.77
Law, Economy, Social Science	3.46
Engineering	4.27

It is highlighted, a much higher value than the unit in all areas except the architecture area. In the engineering area, the highest value is found.

5 Conclusions

Gender Statitistics, provides a detailed account of the percentage gender composition of the different categories of people working within the University, also in relation to the roles and hierarchies within the various groups and activities.

The monitoring of the data, which now covers a period of four years, also allows a preliminary analysis of the evolution of the University's configuration from a gender perspective, although obviously longer-term analyses are necessary for a definitive pronouncement on more or less consolidated trends.

In any case, the information obtained can be a valid support for the start of an appropriate planning of policies aimed at achieving the objectives identified in art. 21 - Law no. 183 of November 4, 2010 and according to the Directive of March 4, 2011, as well as for the planning of positive actions aimed at ensuring the removal of obstacles that, in fact, prevent the full realization of equal opportunities, favoring the rebalancing of the less numerous categories in activities and hierarchical positions where the gap appears structural and consistent (art. 48 Legislative Decree no. 198, April 11, 2006).

As far as the context of the University Mediterranea is concerned, in conclusion it is possible to state that:

- the student body, as a whole, shows a uniform distribution by gender stable in the four years analyzed; however, substantial differences are found if we analyze the data at a lower level of aggregation; in this case the gap between students and female students in the areas of Engineering and Agriculture (STEM areas - Science, Technology, Engineering and Mathematics) appears stable and consolidated in the 5 years examined; this data may perhaps be useful in the planning of tutoring and orientation strategies;
- the percentage distribution by gender of academic careers did not change substantially in the years 2015-2019; women still make up about 30% of the teaching staff; also the range of careers has remained almost unchanged with a reduction in the presence of women, up to a percentage of 20%, in the highest qualifications;
- the distribution by gender within the technical-administrative staff appears fairly homogeneous, with little pronounced differences in career progression.

This reality should also be considered when promoting awareness-raising and empowerment actions aimed at reducing gender differences among members and all people involved in particular in the STEM areas.

This is not an easy path, but it is necessary to contribute to the achievement of the general objectives of efficiency, effectiveness, transparency and equity that are at the basis of the overall governance of the University.

Main references for further information

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