Gender Report
Web Appendix
University of Ferrara
2013

Web Appendix

2 - Students

Continuing the comparison of data on PhD graduates at UniFe to the national average, table 1 confirms the good results achieve by UniFe in pursuing gender equality. However, the gap present in the areas of study referred to as "Engineering, manufacturing & construction", and "Health & welfare" must be duly noted. In both areas, UniFe presents female percentages of 30% and 48%, significantly lower than the national average (40% and 64%). In this regard, data concerning critical mass should be recalled, considering the fact that in some of these areas females represent a minority of the overall number of students who enrol.

Table 1: Proportion of female PhD (ISCED 6) graduates by broad field of study - 2012

Tab. 2.1
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	Humanities & arts	Social sciences, business & law	Science, mathematics & computing	Engineering, manufacturing & construction	Health & welfare
UNIFE	72	63	62	30	48
IT	64	51	48	40	64

Source: Statistics Office of the MIUR

Table 2: Proportion of female PhD (ISCED 6) students by broad field of study - 2012

	Humanities & arts	Social sciences, business & law	Science, mathematics & computing	Engineering, manufacturing & construction	Health & welfare
UNIFE	67	57	53	27	64
IT	61	52	45	39	65

Source: Statistics Office of the MIUR

Table 3: Compound annual growth rates of PhD (ISCED 6) graduates by narrow field of study in natural science and engineering by gender 2005/2012

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	Science, Mathematics & Computing (EF4)								Engineering, Manufacturing & Construction (EF5)					
	Life science (EF42)		Physical science (EF44)		Mathematics & statistics (EF46)		Computing (EF48)		Engineering & engineering trades		Manufacturing & processing (EF56)		Architecture & building (EF58)	
	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
UNIFE	-6	-3	2	-14	0	*	-	-	7	12	-	-	9	6
IT	2	2	1	-1	0	2	1	2	5	3	-	-	-1	-1

* data cannot be calculated: in 2005 there were no PhD graduates in this field, in 2012 there were two.
Source: Statistics Office of the MIUR

Table 4: Evolution of the proportion of female PhD (ISCED 6) graduates by narrow field of study in natural science and engineering (fields EF4 & EF5), 2005/2012

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	Science, Mathematics & Computing (EF4)								Engineering, Manufacturing & Construction (EF5)					
	Life science (EF42)		Physical science (EF44)		Mathematics & statistics (EF46)		Computing (EF48)		Engineering & engineering trades		Manufacturing & processing (EF56)		Architecture & building (EF58)	
	2005	2012	2005	2012	2005	2012	2005	2012	2005	2012	2005	2012	2005	2012
UNIFE	53	58	39	68	100	50	-	-	33	28	-	-	33	40
IT	64	63	42	46	46	43	24	22	27	30	-	-	51	51

Source: Statistic Office MIUR

Table 5: Number of PhD (ISCED 6) graduates by gender - 2008/2012

	2008		2009		2010		2011		2012	
	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
UNIFE	64	57	62	68	59	60	55	49	71	57
IT	6 751	5 993	6 514	5 801	5 996	5 482	6 018	5 297	6 172	5 404

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Source: Statistics Office of the MIUR

The data shown in table 6 and table 7 present the distribution of PhD graduates and PhD students in UniFe (in 2012) by gender and field of study. The data highlight that the areas of 'humanities and arts' and' social sciences, business and law" include a lower proportion of PhD students and PhD graduates than the area of the hard science, consistent with national distribution.

Table 6: Number of PhD (ISCED 6) graduates by broad fields of study and gender - 2012

	Humanities & arts		Social sciences, business & law		Science, mathematics & computing		Engineering, manufacturing & construction		Health & welfare	
	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
UNIFE	13	5	15	9	26	16	7	16	10	11
IT	1 319	756	940	898	1 532	1 650	626	955	1 270	710

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Source: Statistic Office of the MIUR

Table 7: Number of PhD (ISCED 6) students by board field of study and gender - 2012

	Humanities & arts		Social sciences, business & law		Science, mathematics & computing		Engineering, manufacturing & construction		Health & welfare	
	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
UNIFE	33	16	34	26	80	70	20	53	42	24
IT	3 447	2 203	2 774	2 579	4 793	5 775	2 101	3 283	3 580	1 937

Source: Statistic Office MIUR

Table 8 shows the situation of PhD graduates in fields of study EF4 and EF5 by gender. The data shows that UniFe has a proportion of female PhD graduates in the field of Physical science higher than the male one; on the contrary, in the national average, male PhD graduates are the majority. The opposite situation occurs in the field of architecture and civil engineering.

Table 8: Number of PhD (ISCED 6) graduates by narrow field of study and gender in natural science and engineering (EF4 & EF5 fields) - 2012

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	Science, Mathematics & Computing (EF4)								Engineering, Manufacturing & Construction (EF5)			
	Life science (EF42)		Physical science (EF44)		Mathematics & statistics (EF46)		Computing (EF48)		Engineering & engineering trades		Architecture & building (EF58)	
	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
UNIFE	11	8	13	6	2	2	-	-	5	13	2	3
IT	806	478	473	552	125	167	128	453	252	601	374	353

Source: Statistic Office MIUR

3 - Technical and administrative staff

Table 1 allows us to analyze data regarding the length of service of TAS by gender.

Table 1: Distribution of technical and administrative staff, by gender and length of service - 2013

Length of service	Category B		Category C		Category D		Category EP	
	Total	Proportion of women	Total	Proportion of women	Total	Proportion of women	Total	Proportion of women
0-5	1	100	22	59	2	100	1	0
6-10	9	67	49	69	13	85	0	0
11-15	20	75	77	56	24	71	4	75
16-20	8	75	20	80	15	60	3	67
21-25	16	69	56	71	21	67	6	83
26-30	14	71	35	77	22	68	4	24
31-35	1	100	24	75	15	73	1	100
36-40	2	50	17	76	7	57	2	50
TOTALE	71	72	300	68	119	70	21	62

To these the General Director (man, length of service 0-5) and two Managers (both men, length of service 16-20 and 21-25) are added.

Source: HR Division UniFe

Table 2 emphasizes the technical and scientific staff of category D and EP, showing a greater presence of women in cat. D and a greater presence of men in cat. EP.

Table 2: Scientific technical and administrative staff in categories D and EP, by structure - 2013

Departments	Category D		Category EP	
	Women	Men	Women	Men
Center for Electronic Microscopy	3	0	0	0
Department of Physics and Earth Sciences	0	2	0	0
Department of Engineering	0	2	0	0
Department of Morphology, Surgery and Experimental Medicine	6	2	0	1
Department of Biomedical Sciences and Advanced Therapies	5	2	0	0
Department of Chemical and Pharmaceutical Sciences	3	3	0	1
Department of Biotechnologies for Health and Environment	3	1	0	2
Department of Medical Sciences	3	1	0	1
Centres outside the University	0	0	1	1
Total	23	13	1	6

Source: HR Division UniFe

Table 3: Technical and administrative staff by educational qualification and gender - 2013

	Women	Men
Compulsory education	47	18
High School	123	68
Bachelor Degree (including 1st level University Masters and University Diplomas)	26	16
Master's Degree (including old system degrees and MSc)	113	47
Post-graduate (including PhD, graduate studies and 2nd level University Masters)	42	14

Source: HR Division UniFe

4 - Academic staff

For a better comparison between UniFe and the Italian average as regards the subdivision by gender of the researchers, it is possible to assess the trend between 2008 and 2012 concerning the proportion of women and men.

The analysis reveals that the proportion of women and men in the two cases is almost identical, with a slight increase with respect to the presence of women: in 2008 and 2009 female researchers were respectively 37% and 38% of the total in the University and in the Italian average, while in 2010 this increased by one percentage point only relatively to the national average, remaining unchanged in UniFe until the following year. In 2011, both the University and the national average saw a presence of females among the researchers amounting to 39%, which increased to 40% in 2012 only with reference to Italy as a whole.

Table 1: Number of researchers by gender - 2008/2012

	2008		2009		2010		2011		2012	
	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
UNIFE	348	591	343	567	344	573	351	559	365	580
IT	27 507	47 433	29 170	47 915	29 369	46 321	29 268	45 481	30 591	46 063

Source: *HR Division UniFe; **Statistics Office of the MIUR

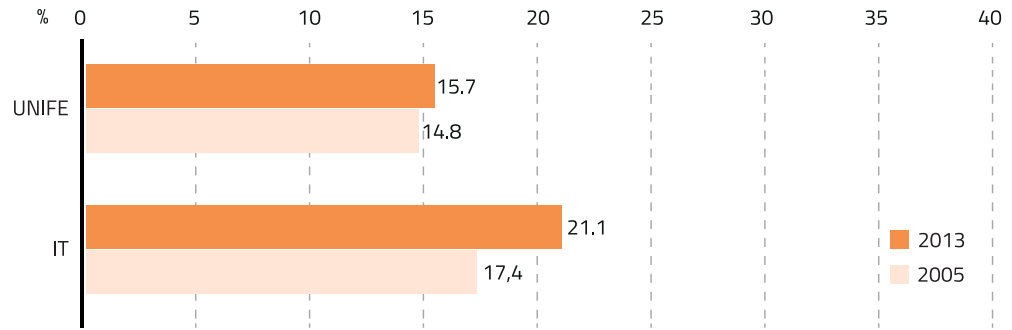Table 2: Full time and fixed time academic staff by gender - 2013

	2013	
	Women	Men
Full time grade A	24	118
Fixed time grade A	0	12
Full time grade B	56	113
Fixed time grade B	2	15
Full time grade C	115	152
Fixed time grade C	4	15

Source: HR Division UniFe

Figure 1 highlights the difficulty of the University in bridging the gender gap at the top of the academic career. In fact, if in 2005 the gap was 2.6 percentage points, in 2013 it was 5.4 percentage points, dramatically increasing.
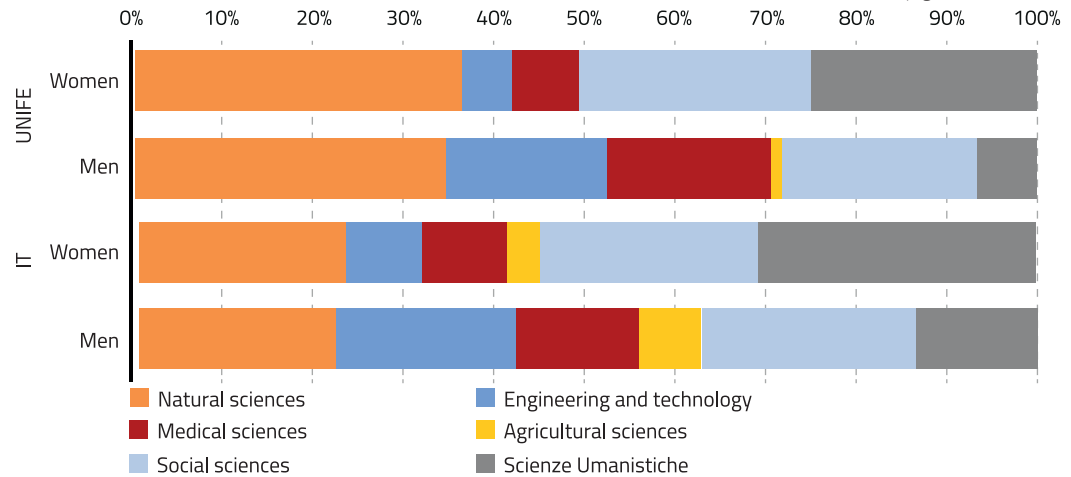
Figure 2 shows the distribution of the professors by sector and gender, showing the prevalence of male Grade A especially in the fields of Engineering and technology and Medical sciences.

Figure 1: Proportion of women in grade A academic positions - 2005/2013

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UNIFE: 15.7 (2013), 14.8 (2005)
IT: 21.1 (2013), 17,4 (2005)

Source: Statistics Office of the MIUR

Figure 2: Distribution of senior academic staff (grade A) across fields of science by gender - 2013

Fig.3.5 pag.94

Natural sciences
Engineering and technology
Medical sciences
Agricultural sciences
Social sciences
Scienze Umanistiche

Source: Statistics Office of the MIUR

Figure 3, if compared with the previous one, emphasizes that the Italian situation relating to distribution by scientific fields of grade A and grade B academic staff does not present significant changes. On the contrary, in UniFe, the proportion of female Grade B working in the field of Natural Sciences is higher than the one of female Grade A.
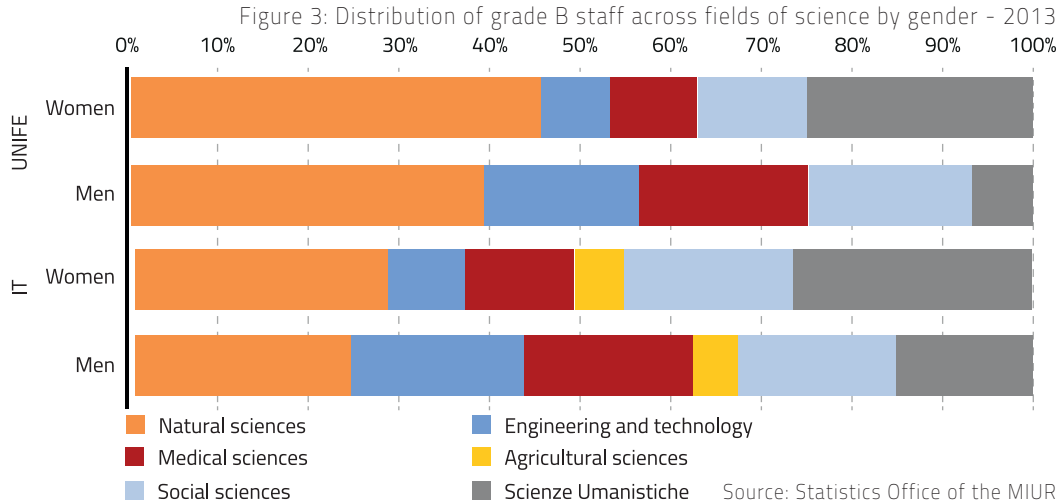

Figure 3: Distribution of grade B staff across fields of science by gender - 2013

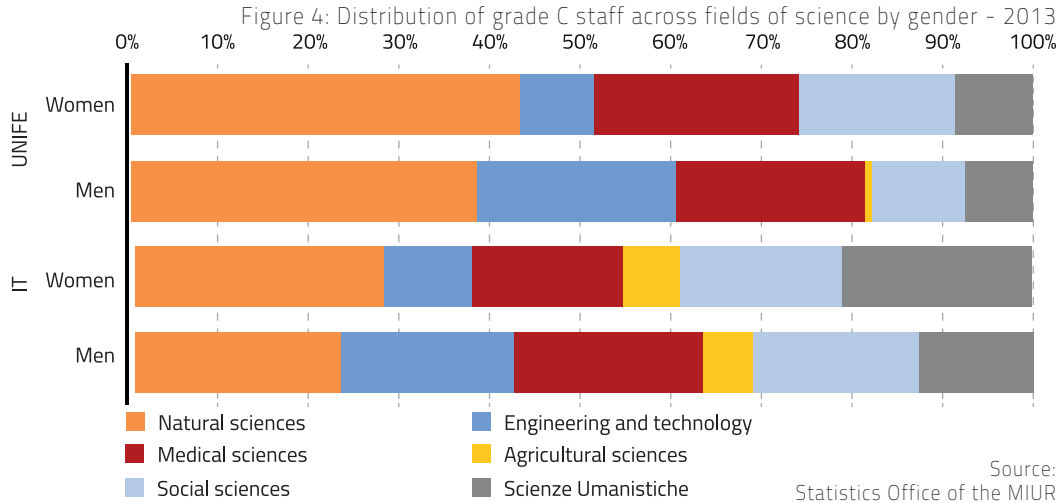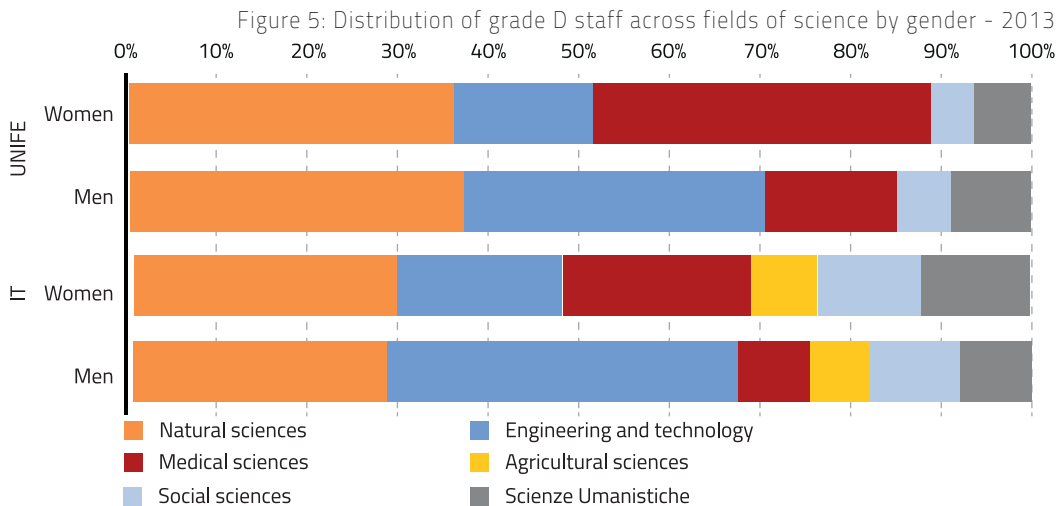Source: Statistics Office of the MIUR

Figure 4 confirms this trend. Not only: as can be seen from the graph, the proportion of grade C in the scientific fields of Medical Sciences is greater than the corresponding share of grade B academic staff in this field, while confirming, both at the University and at national level, albeit more pronounced at the University, a downward trend in the proportion of women in the field of Humanities.

Figure 4: Distribution of grade C staff across fields of science by gender - 2013

Source:
Statistics Office of the MIUR

As regards the distribution by sector of grade D academic staff, it is clear that both in UniFe and in Italy there emerges an increasing female (but also male) presence in the fields of Medical Science and Engineering and technology .

Figure 5: Distribution of grade D staff across fields of science by gender - 2013

Source: Statistics Office of the MIUR

The under-representation of the women in the highest positions of academic career could result from a generational effect, which reflects among a situation of minority of female students when the current female professors were undergraduates themselves.

Based on this premise, one would expect a higher proportion of women as the age group considered decreases. This hypothesis is not confirmed, however, in Table 3, where the national average is considered, and there is slight evidence in the case of UniFe.

Table 3: Proportion of female grade A staff by age group - 2013

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		<35	35-44	45-54	55+	Total
UNIFE	No Grade A under 35*		20	18	15	16
IT			19	20	22	21

*No Grade A under 35 years.

Source: Statistics Office of the MIUR

Table 4 shows how in UNIFE there is a substantial delay in accessing to the female grade B position compared to what happens on average in Italy.

Table 4: Proportion of female grade B staff by age group - 2013

	<35	35-44	45-54	55+	Total
UNIFE	No Grade B under 35 years	7	29	38	16
IT	25	24	36	34	21

Source: Statistics Office of the MIUR

With regard to grade C, it is interesting to note that the ratio of women under the age of 35 is equal to zero, against a national average of 41%. This describes a situation in which the access to permanent academic positions at a young age is the prerogative of men.

Table 5: Proportion of female grade C staff by age group - 2013

	<35	35-44	45-54	55+	Total
UNIFE	*0	44	40	47	42
IT	41	45	47	44	45

* The presence of grade C in the age group is limited to the male gender.

Source: Statistics Office of the MIUR

Regarding grade D, Unife has a substantial preponderance of females, except in the age groups between 45-54 and over 55, in which fellowship are not counted.

Table 6: Proportion of female grade D staff by age group - 2013

	<35	35-44	45-54	55+	Total
UNIFE	52	65	46	No Grade D over 55 years	56
IT	49	52	55	43	50

Source: Statistics Office of the MIUR

Table 7 shows the number of presences by gender of UniFe academic staff and of the national total.

Table 7: Number of academic staff by grade and gender - 2013

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	Grade A		Grade B		Grade C		Grade D	
	Women	Men	Women	Men	Women	Men	Women	Men
UNIFE	24	129	59	127	119	167	143	112
IT	2 935	10 955	5 532	10 278	11 777	14 171	8 183	8 097

Source: Statistics Office of the MIUR

Table 8: Number of senior academic staff (Grade A) by field of science and gender - 2013

	Natural sciences		Engineering and technology		Medical sciences		Agricultural sciences		Social sciences		Humanities	
	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
UNIFE	9	45	1	23	2	23	0	1	6	29	6	8
IT	694	2 514	237	2 045	1 657	261	112	607	709	2 604	922	1 528

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Source: Statistics Office of the MIUR

Tables 8 and 9 show the total by gender of grade A academic staff according to scientific fields and age groups.

Table 9: Number of senior academic staff (Grade A) by age group and gender - 2013
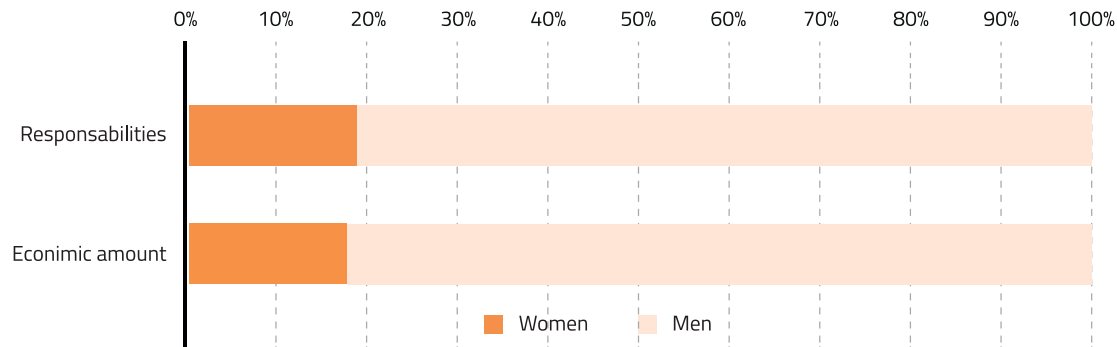
	<35		35-44		45-54		55+	
	Women	Men	Women	Men	Women	Men	Women	Men
UNIFE	0	0	1	4	7	32	16	93
IT	0	0	54	226	671	2 689	2 210	8 040

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Source: Statistics Office of the MIUR

Figure 6: Share of responsibilities* and total economic amount of projects by gender (PRIN 2009, 2010-2011, 2012, FIRB Youth 2008, 2010, FIR 2012, FIRB Agreements 2010, 2011)

* Both national Coordinators and Responsibles of Operative Unit are considered.

Source: Research Division UniFe