

NUMBERS, FACTS, ANALYSES. Gender equality at the University of Graz

an English summary

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Introduction & Summary

The consideration of gender ratios as well as gender (in)equality creates certainty about the current state of equality at the University of Graz. A continuous study of these key aspects also provides information about the change in gender ratios at the University of Graz over time. This paper presents a summary of the brochure "Facts, Figures, Analyses. Equal Opportunities at the University of Graz" where the most important data is presented. Before discussing gender inequalities in individual areas of the University of Graz, concise findings are presented:

The proportion of women among professors has increased from 6% at the turn of the millennium to 35% in 2021 (in terms of full-time equivalents), which is very high in comparison to other universities. This development is remarkable, but there is still a long way to go to achieve gender equality among professors. For all habilitations completed from 2018 to 2021, the percentage of women is only 40%, which is lower than in the years before. One possible reason is the decreased proportion of habilitation committees who fulfill their women's quota. At the same time, the proportion of women among younger professors (up to 50 years old) is low at 21%, and the proportion of newly appointed professors who are women was only 25% in 2021. These factors hinder equality in the ranks of professors in the future.

The phenomenon of the "glass ceiling," i.e., lower percentages of women in higher career levels, continues to be evident in the academic staff. The Faculty of Social Sciences and the Faculty of Natural Sciences are particularly affected, with the exception of the scientific branch of psychology. A shift in emphasis in the advertised positions so that they are more attractive to women could counteract this.

Women at the University of Graz work part-time more often than men, both as scientific and as general staff. In the future, it should be analyzed why this gap exists and how it could be reduced (if the part-time work is not based on personal preferences).

Most of the curricula commissions can achieve a minimum of 50% female representation, but in the appointment and habilitation commissions the proportion of women is often below this 50% barrier. Due to the lower percentages of women among professors, they are disproportionately more burdened by commission work. A compensation model will be implemented and evaluated in 2023.

The position of president and all dean positions are held by men. Women should therefore be actively encouraged to pursue higher management positions and recruited in a targeted, open and transparent manner.

Low proportions of women are found in the natural science subjects of mathematics and physics. Low proportions of men, on the other hand, can be seen in several fields of study of the Faculty of Arts and Humanities as well as in pharmacy studies and educational sciences. Students should be informed as well as possible about different fields of study and future career options in the run-up to university education, so that stereotypical ideas about gender and studies are avoided as much as possible.

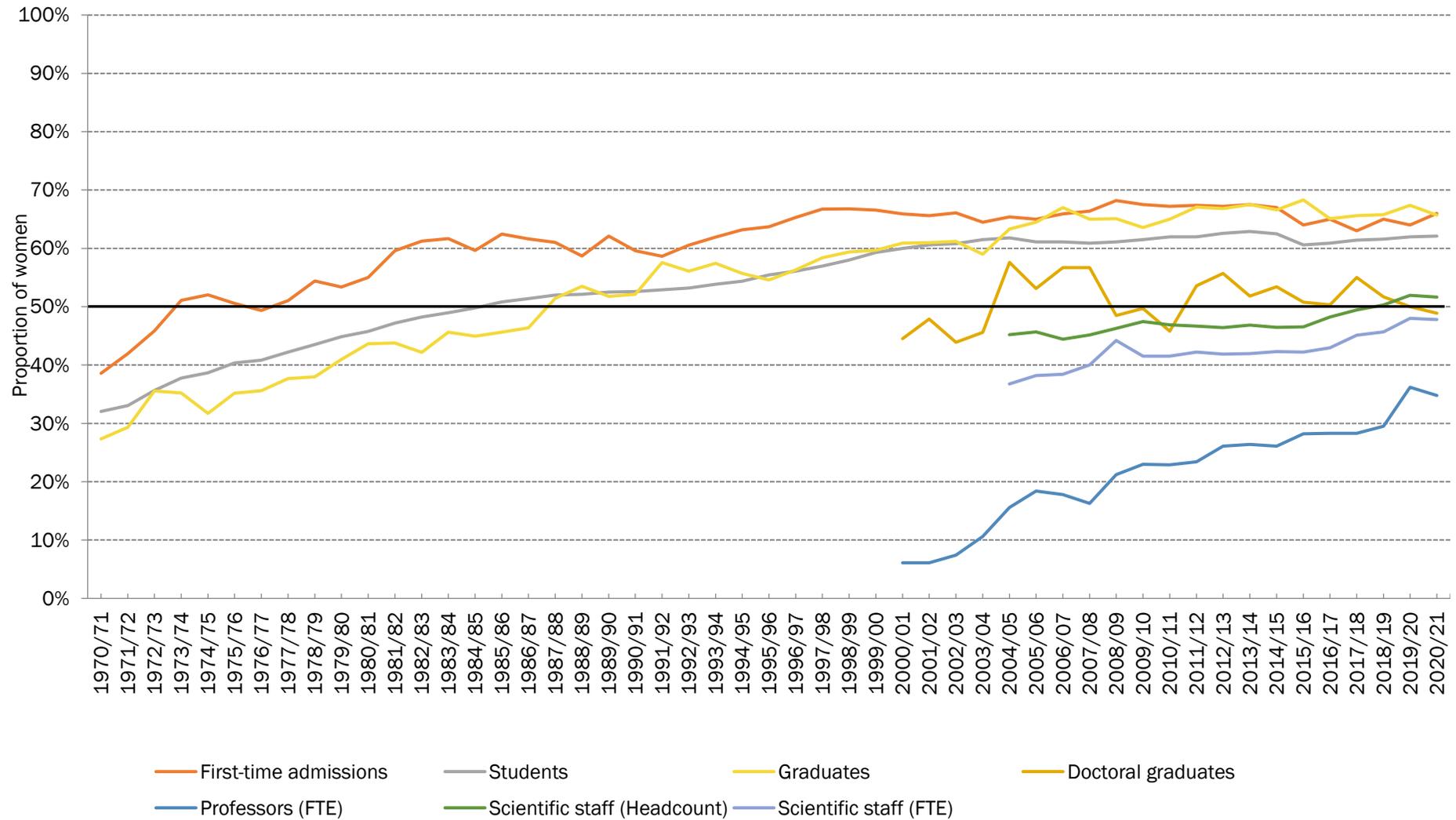
Changes in the gender ratio at the University of Graz – A retrospective look at the past few decades

An overview of the development of gender ratios at the University of Graz provides relevant information on recent achievements in terms of gender equality, but also highlights areas where improvements still need to be made. At first glance, it can be seen that the proportion of women in first-time admissions has been at least 50% since the early 1970s, and among students and graduates this milestone was reached in the mid-1980s. More recent data shows that the proportion of women among doctoral graduates has been around 50% since the mid-2000s, although the proportion of women is relatively volatile due to the small number of doctoral graduates overall. In the scientific university staff, the 50% barrier was recently surpassed in the academic year 2018/19 with a percentage of 52% women. However, this only applies to the number of staff - if we look at full-time equivalents, the percentage of women is 48%.

This gap between headcount and full-time equivalents suggests the proportion of women working part-time. However, the gap between headcount and full-time equivalents decreased in recent times from 8%-points in 2004/05 to 4%-points in 2020/21, reducing the risk of the "part-time trap" for women.

Among professors, there has been a distinctive increase in the proportion of women from 6% at the beginning of the 21st century to 35% in 2020/21 (in terms of full-time equivalents, based on female headcount the percentage is 33%). This increase is, among other things, a remarkable achievement for the gender equality work done at the University of Graz. Nevertheless, there is still a long way to go to achieve equality at the highest career level of academic staff.

Proportion of women among students, graduates and staff members over the past few decades



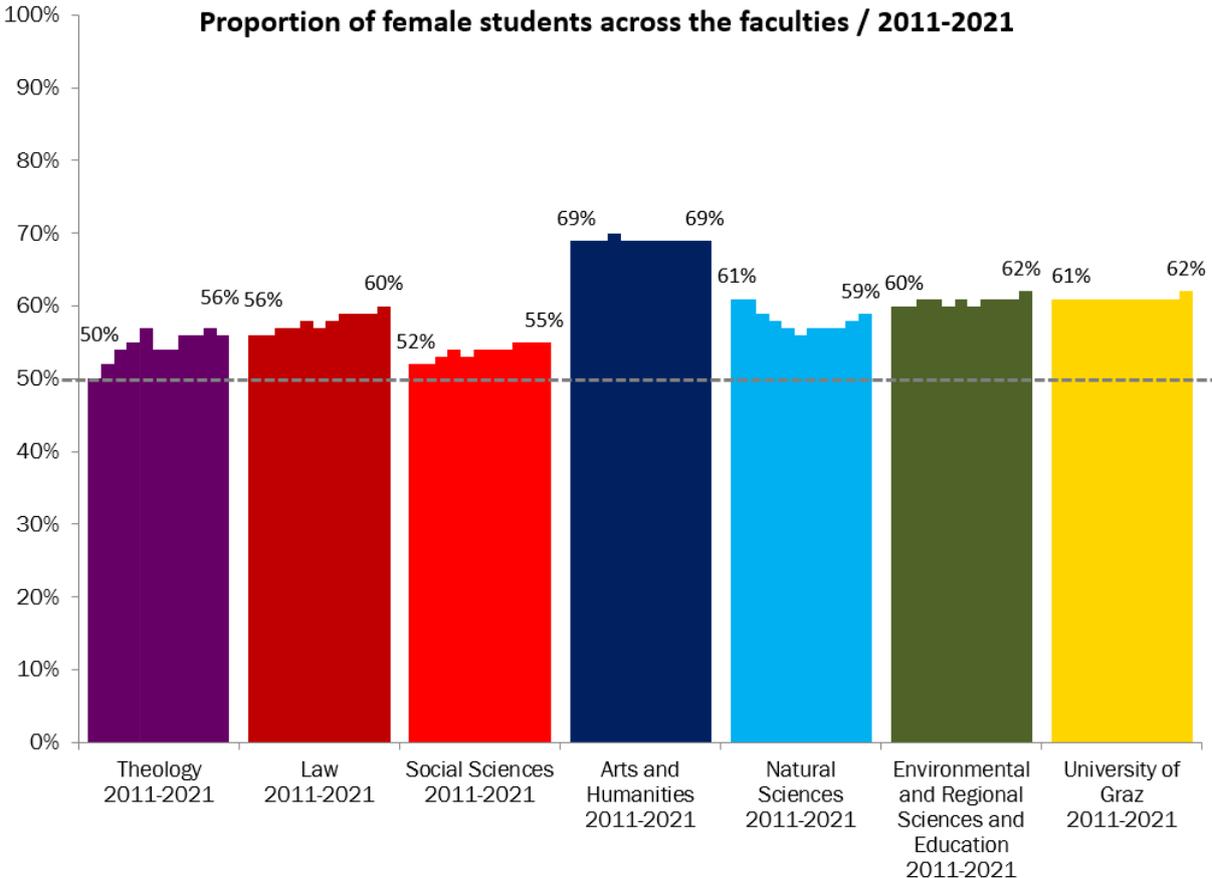
Notes: FTE: Full-time equivalents.

Proportion of women among students

In recent years, the proportion of women among students has remained stable at around 62% throughout the University of Graz, with a majority of female students in all faculties.

At the Faculty of Theology, the Faculty of Law and the Faculty of Social Sciences, the proportion of women has increased in recent years, while the gender ratio at the Faculty of Arts and Humanities and the Faculty of Environmental and Regional Sciences and Education as well as in the interdepartmental studies has remained constant. The Faculty of Natural Sciences showed a decrease in the proportion of women from 2011 to 2016, but an increase from 2016 to 2021, so that the proportion of women in this faculty remained about the same over the past 10 years.

In 2021, the Faculty of Social Sciences had the lowest proportion of women at 55%, while the Faculty of Arts and Humanities had by far the highest at 69%. It is striking that the number of women among students at the Faculty of Natural Sciences is over 50% even excluding psychology, which is often considered an "outlier" among the natural sciences. This is due, among other things, to high proportions of women in the scientific branches of pharmacy and biology.



Proportion of women among students

The analysis of gender disparities at the student level is important to evaluate the potential for young scientists at the University of Graz. However, there are also attractive career opportunities for women outside the university in subjects that are currently still quantitatively dominated by men, like subjects in natural sciences, where initiatives to increase the proportion of women have been in place for many years. At the same time, there is a growing effort to increase the proportions of men in quantitatively female-dominated professions, such as social professions. Again, close monitoring of gender disparities is useful, as breaking down rigid perceptions of gender benefits everyone.

For this reason, we provide an overview of subjects in which the proportion of women was below 30% or below 40% in the winter semester of 2021/22. The subsequent overview of subjects with a low proportion of men in the winter semester 2021/22 is limited to the thresholds of 10% and 20%, as otherwise too many fields of study would have to be mentioned.

The lowest proportions of women are still in the natural sciences, primarily in Physics (Bachelor and Master) and Mathematics (Master). Further studies with less than 40% female students include Catholic Theology (Diploma), Economics (Master), Ancient History (Master), Mathematics (Bachelor), Physics (Teacher Training Bachelor and Master), Advanced Material Science (Master), Geography (Bachelor) and Sport Science (Bachelor, Master, Teacher Training Bachelor and Master) (see table 1).

The lowest proportion of men on the other hand can be observed at the Faculty of Arts and Humanities. In addition, a low proportion of men can be observed in the studies of Pharmacy (Bachelor and Master), Educational Sciences (Diploma, Bachelor, Master and Teacher Training Master) and Gender Studies (Master), as well as in teacher training programs in Psychology, Chemistry and Philosophy (see table 2).

Table 1. Quantitatively male dominated studies at the University of Graz / Winter Semester 2021/22

Frauen anteil	Theology	Social Sciences	Arts and Humanities	Natural Sciences	Environmental and Regional Sciences and Education
Unter 30%				Physics BA (27%) Physics MA (20%) Mathematics MA (29%)	
Unter 40%	Catholic Theology Diplom (37%)	Economics MA (32%)	Ancient History MA (33%)	Mathematics BA (32%) Physics BA TT (34%) Physics MA TT (32%) Advanced Material Science MA (33%)	Geography BA (37%) Sport Science BA (37%) Sport Science MA (35%) Sport Science BA TT (34%) Sport Science MA TT (37%)

Notes: Percentage of women in parenthesis. BA: Bachelor, MA: Master, TT: Teacher Training.

Table 2. Quantitatively female dominated studies at the University of Graz / Winter Semester 2021/22

Männer anteil	Arts and Humanities	Natural Sciences	Environmental and Regional Sciences and Education	Interdepartmental
Unter 10%	Art History MA (8%) Philosophy MA TT (7%) Slavic Studies MA (7%)	Psychology MA TT (7%)	Educational Sciences Diplom (0%) Educational Sciences MA TT (8%)	Gender Studies MA (8%)
Unter 20%	English Studies MA TT (17%) German Philology MA (19%) German Philology MA TT (17%) Romance Studies MA (11%) Romance Studies BA TT (16%) Romance Studies MA TT (14%) Slavic Studies BA TT (12%) Translation Studies BA (17%) Translation Studies MA (12%)	Chemistry BA TT (16%) Pharmacy BA (18%) Pharmacy MA (14%)	Educational Sciences BA (18%) Educational Sciences MA (11%)	

Notes: Percentage of men in parenthesis. BA: Bachelor, MA: Master, TT: Teacher Training.

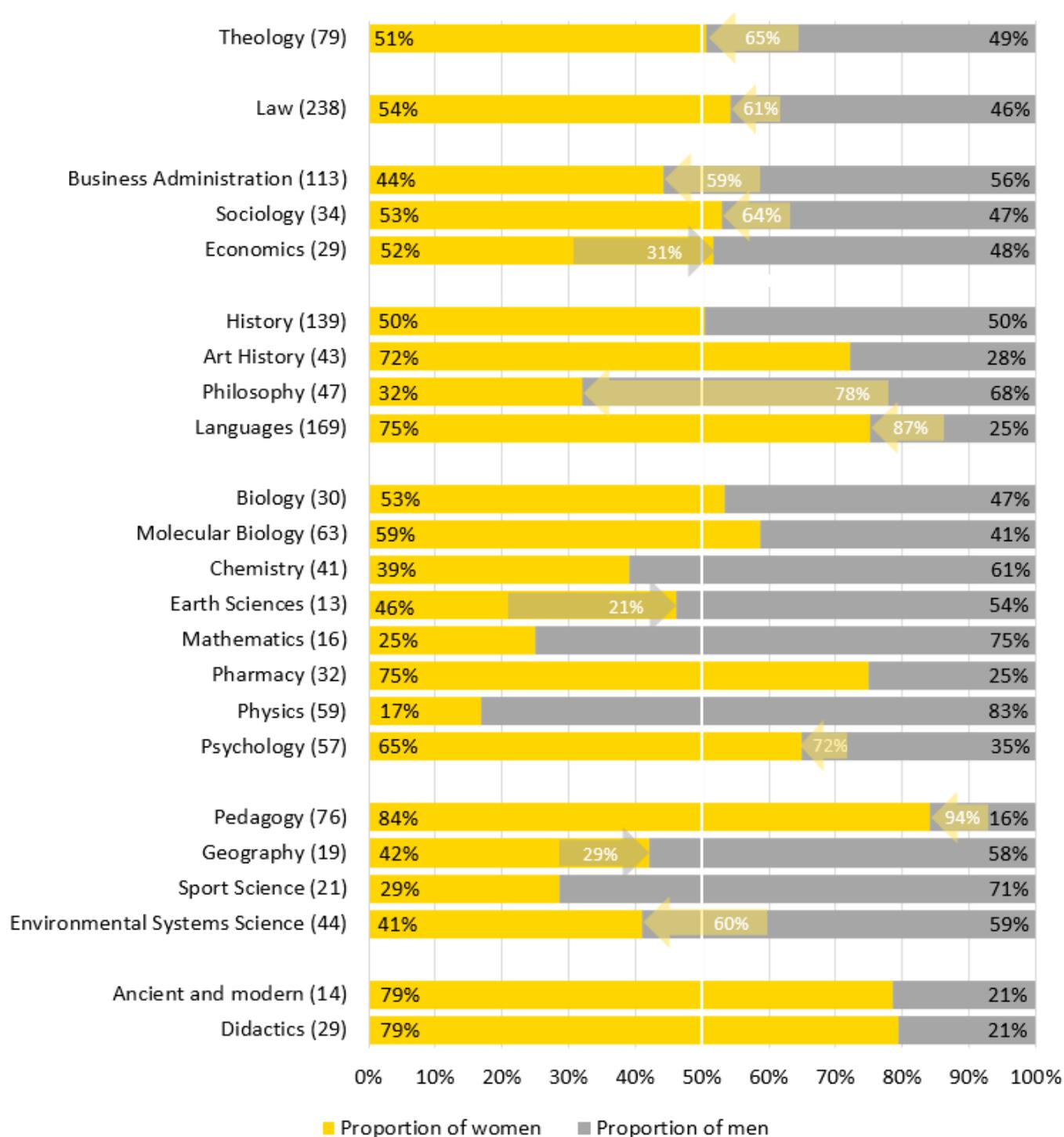
Proportion of women among doctoral students

The doctorate is an important first step in an academic career. In the winter semester 2021/22, 55% of the 1,405 doctoral students were women. This proportion is lower compared to the proportion of women of 63% to 67% among graduates of master's and diploma studies. Although the number of doctoral students has decreased significantly over time, with 1,643 students in 2016/17, the proportion of women has proven to be relatively constant in recent years. In addition, the two interdepartmental doctoral programs, Didactics and Ancient & Modern Studies, have a very high proportion of women, 79% in each case.

In 16 of the 21¹ doctoral programs, there is a decline in the proportion of women in the transition from the master's or diploma program to the doctoral program. In seven programs, this decline is limited to less than 5 percentage points, but in nine programs the decline is more pronounced (as shown in the figure below). This decline is particularly evident in the study of philosophy, where despite there being 78% women among master's graduates, only 32% of doctoral students are women. Since the number of graduates in this field of study is very small, the percentage of women fluctuates accordingly, which partly explains this extreme gap. Conversely, especially in the fields of economics, earth sciences and geography, there is a significantly higher proportion of women among doctoral students compared to the respective graduates. To a lesser extent, this also applies to the scientific disciplines of history and the arts.

¹ The interdepartmental doctoral programs are not included here because they do not build on any specific master's or diploma program.

Doctoral students 2021/22

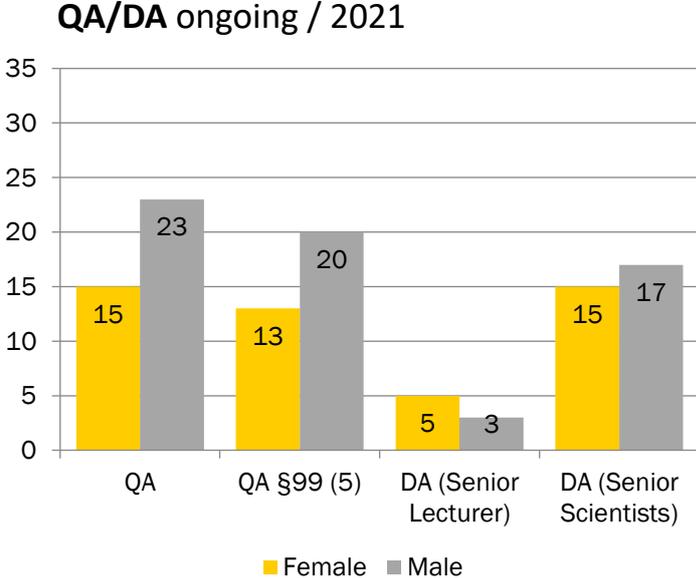
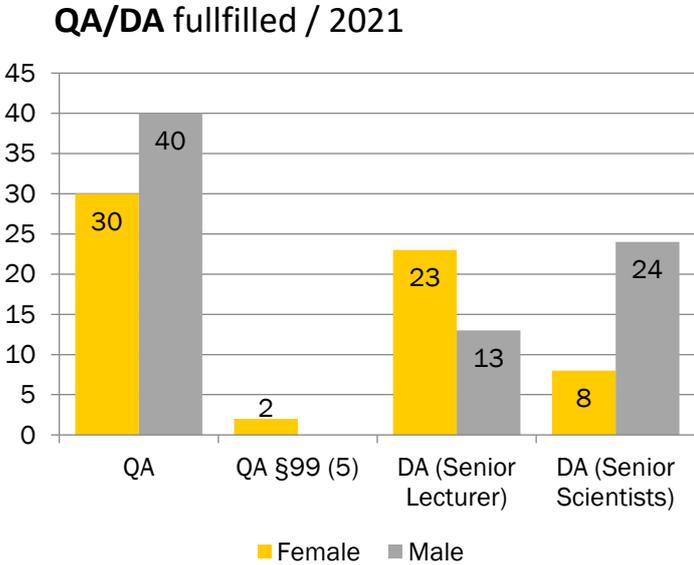


Notes. The arrows show the proportion of women among graduates of master's and diploma studies and are displayed if this difference exceeds 5%-points. Example: In Business Administration, the proportion of women among master's and diploma graduates reaches 59% while the proportion of women among doctoral students reaches 44%. Headcount in parentheses.

Proportion of women among Tenure Track Positions

Gender disparities in career positions are of particular importance, as they can contribute to balancing gender ratios at the University of Graz in the long run. Holders of qualification positions or positions with a development agreement are given the opportunity to obtain a permanent employment contract after reaching pre-agreed goals. "Tenure track professors" become university professors according to §99 (5) after fulfilling the qualification agreement (QA). For "Senior Lecturers" and "Senior Scientists", only the employment relationship changes to a permanent contract after the fulfillment of the development agreement (DA), the job title remains the same. Furthermore, prior to the establishment of tenure track career positions according to §99 (5), assistants became assistant professors during the period of the QA and (habilitated) associate professors thereafter. As of the cut-off date of December 31, 2021, there were a total of 251 qualification and development positions by full-time equivalents (of which 140 were "fulfilled" and 111 were ongoing).

Across all successfully completed and ongoing qualification agreements, the proportion of women is 42%, which has not changed in recent years. In the case of Senior Scientists, 47% of the ongoing but only 25% of the fulfilled development agreements are currently in women's hands. Over the last few years, there has been an increase in the proportion of women, especially in ongoing development agreements. The low proportion of women in this area can be explained in part by the fact that more than two-thirds of senior scientists work at the Faculty of Natural Sciences, which is dominated by men.

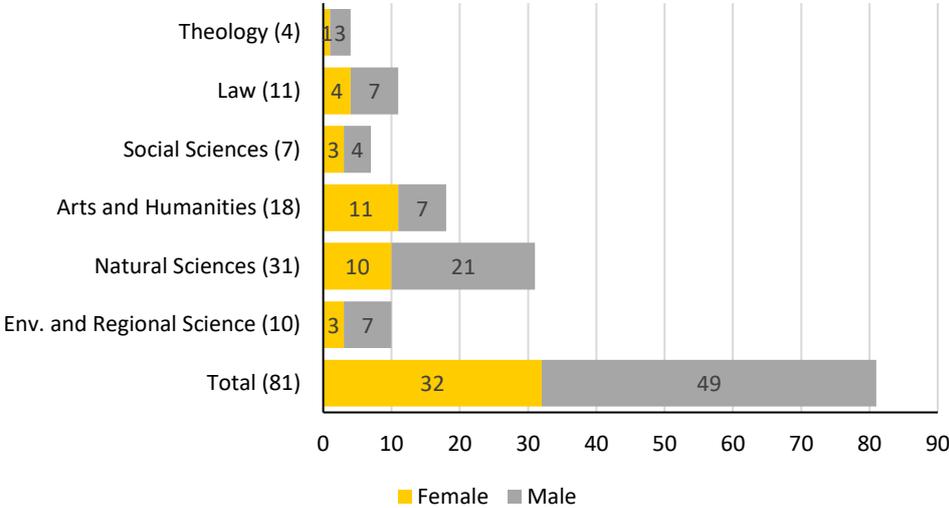


Notes: QA: qualification agreement, DA: development agreement, QA §99 (5) includes Tenure Track positions, QA includes "old" qualification agreements as described above.

Proportion of women among Habilitations

In the years 2018 to 2021, a total of 81 persons habilitated at the University of Graz, 40% of whom are women. Compared to the previous period from 2014 to 2017 (59 persons, percentage of women 54%), the proportion of women among habilitations substantially decreased. With the exception of the Faculty of Arts and Humanities, more men than women received teaching authorizations at all faculties.

Habilitations 2018 - 2021 (Heads in parentheses)

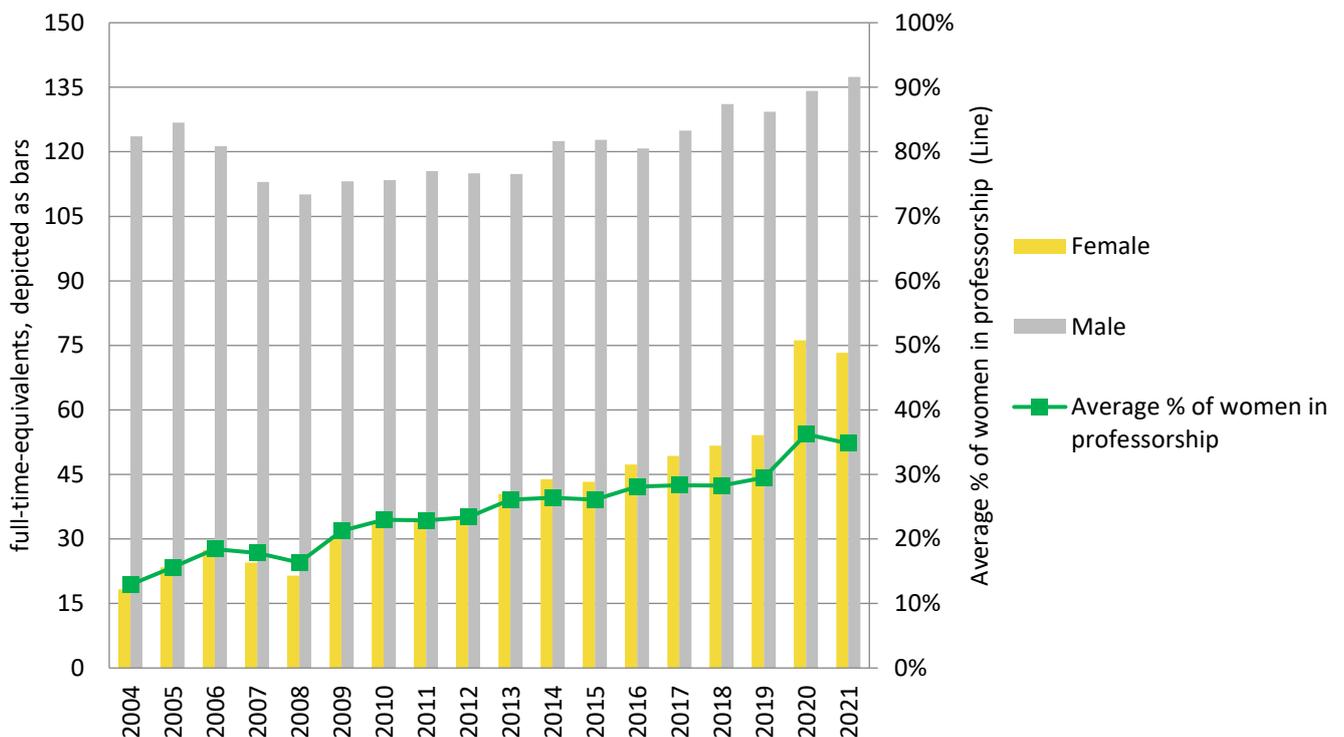


Proportion of women among Professorship positions

In the academic world, the professorship is the highest career level, which for many is the only way to remain permanently at the university and whose attainment is still a particularly large hurdle for women. However, a distinction is made here between professorships under §98 UG², which are usually permanent, and professorships under §99 UG, which are either fixed-term (for five or six years) or offer the possibility of de-tenure after a qualification agreement has been reached.

Women continue to be underrepresented among professors under §98 and §99 UG, with a percentage of 35% in 2021. In recent years, however, a significant increase in the proportion of women has been achieved - in 2000, the proportion of women was still 6%. Especially from 2019 to 2020, there was a significant jump from 29% to 36%, exceeding the 30% barrier for the first time.

Proportion of women among Professorship positions / 2005-2021 (based on full-time-equivalents as depicted on the left scale)



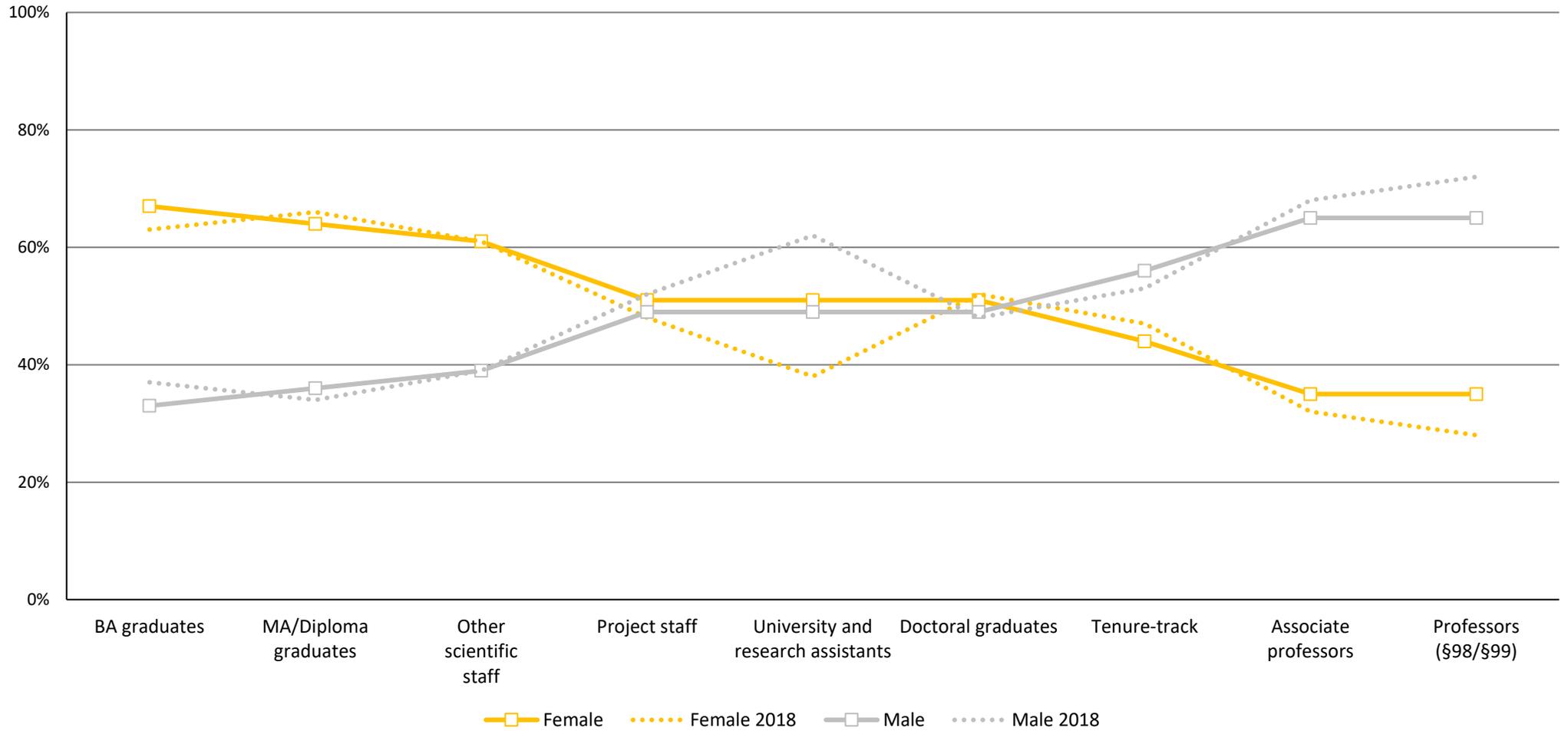
² UG refers to the „Universitätsgesetz“, the Federal Act on the Organisation of Universities and their Studies (Universities Act)

Women in different academic careers

In 2021 there are high proportions of women at the lowest career levels and lower proportions at the higher hierarchical levels. The amount of women among graduates (excluding doctorates), which is around 65%, decreased slightly to 61% among "other scientific staff" (student employees as well as external and temporary lecturers). Subsequently, the number of women in the following career steps of project staff, university and research assistants, and doctoral graduates decreased substantially to 51%. In tenure-track positions, the number of women only reached 44% while the proportion of women among associate professors and professors according to §98 and §99 UG finally reached 35%. This phenomenon is also known as the "glass ceiling" or the "leaky pipeline" and is the reason why the University of Graz has set itself the goal of increasing the proportion of women at the higher levels of the career ladder.

A comparison with 2018 shows that the proportion of women among professors has increased over the last three years, while the proportion of women among associate professors, project staff, and university and research assistants has also risen slightly. Tenure-track positions, on the other hand, have seen a slight decline in the proportion of women over the past three years.

Proportion of women/men in different academic careers University of Graz 2021/2018



Promotion opportunities for women – glass ceiling index

The glass ceiling index is an internationally established indicator for measuring the relative promotion opportunities for women. The term "glass ceiling" refers to barriers that impede women's careers. The glass ceiling index can be calculated by relating the proportion of women among professors to the proportion of women among the scientific staff.

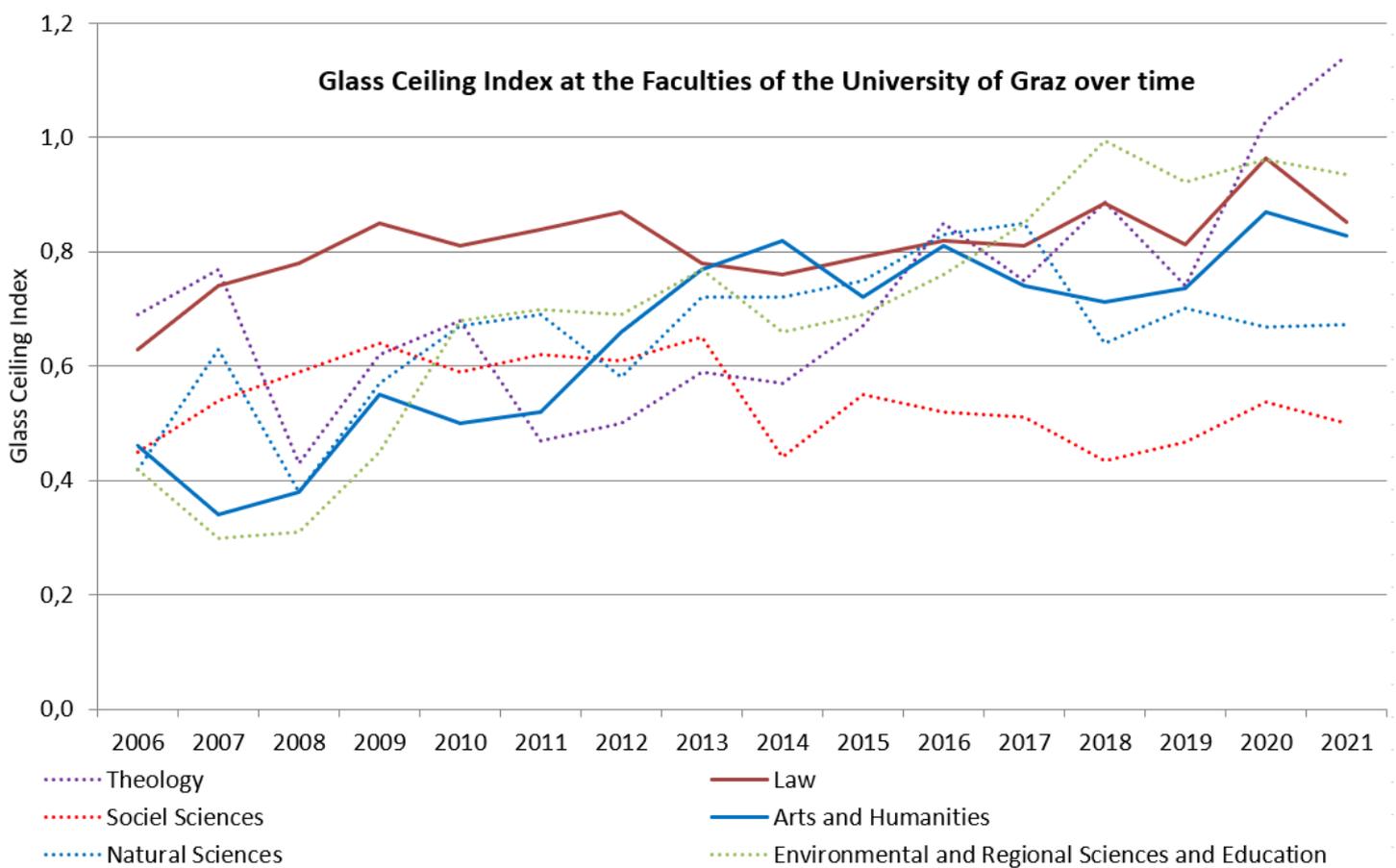
The index values in the table can be read as follows: If there is a balanced gender ratio, the index takes a value of 1. The further the value is below 1, the lower the chances of advancement for women compared to men. In addition to the index values, the proportions of women (in %) among professors and scientific staff are reported. This is important because an increase in promotion opportunities in the index can also be accompanied by a decrease in the proportion of women among the scientific staff.

The results (see table 3) make it clear that there has been an improvement in the advancement of opportunities for women at the University of Graz from 2018 to 2020, with a slight decrease in the glass ceiling index from 2020 to 2021. At the Faculty of Law as well as at the Faculty of Environmental and Regional Sciences and Education, the index decreased from 2018 to 2021, albeit at a high level. In all other faculties, the glass ceiling index increased from 2018 to 2021. At the Faculty of Theology, a glass ceiling index greater than 1 is also shown for the first time, as the proportion of women among professors is higher than the proportion of women among the scientific staff. As in previous years, the Faculty of Arts and Humanities shows the highest proportion of women among professors as well as among scientific staff. The lowest percentage of women among professors and scientific staff is found at the Faculty of Social Sciences, which also has the lowest Glass Ceiling Index of 0.50.

In the last 15 years, the promotion opportunities for women have improved at all faculties and are approaching those of men. A closer look reveals different trends among the faculties: At the Faculty of Social Sciences, there was an increase in the index from 2006 to 2013, but since then the trend has been downward. The Faculty of Natural Sciences has also seen a decrease in the index since 2018, while the Faculty of Theology has seen a sharp increase since 2020. The remaining faculties have seen a relatively continuous upward trend.

Table 3. Glass ceiling index for the faculties of the University of Graz over time

	2018	2019	2020	2021	2021 Proportion of women among professors (%)	2021 Proportion of women among scientific staff (%)
Theology	0,89	0,74	1,03	1,14	50%	44%
Law	0,88	0,81	0,96	0,85	41%	48%
Social Sciences	0,44	0,47	0,54	0,50	17%	35%
Arts and Humanities	0,71	0,74	0,87	0,83	48%	57%
Natural Sciences	0,64	0,70	0,67	0,67	24%	35%
Environmental and Regional Sciences and Education	0,99	0,92	0,96	0,93	43%	46%
Overall	0,71	0,72	0,82	0,80	35%	44%



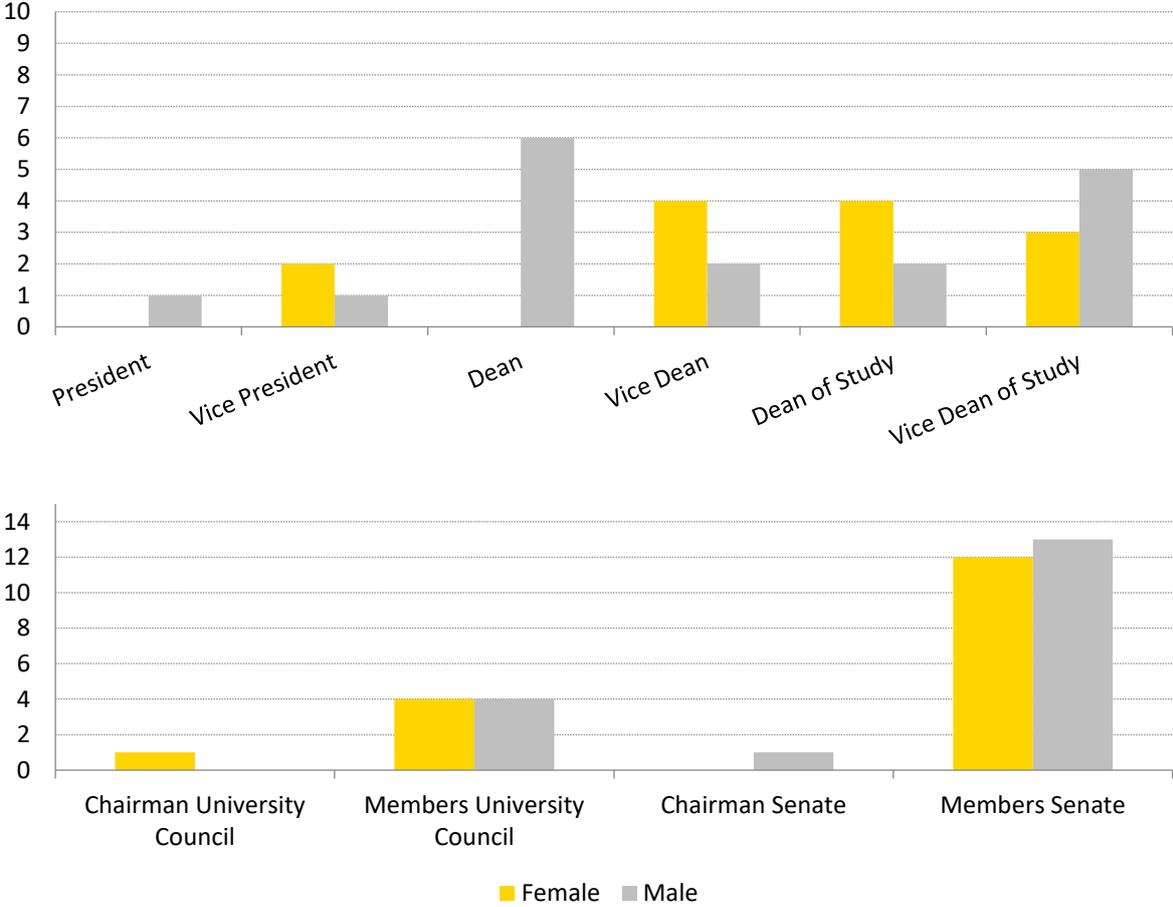
Leadership positions

The University of Graz has set itself the goal of achieving a gender balance, particularly at the level of management. From 2011 to 2019, the university was led by a woman as president for the first time in its existence; since then, this position has once again been in men's hands. Among the three vice presidents in 2021, there were two women, the vice president for digitization and the vice president for teaching and learning.

The second female dean in the history of the university, who took over as head of the Faculty of Environmental and Regional Sciences and Education in 2011, was replaced by a man in 2019, so all dean positions are once again in men's hands in 2021. In return, four of the six vice deans are women. This picture is reversed when looking at the deans of studies, who are responsible for the organization of studies and teaching. This office is held by women in four faculties and by men in two faculties. Among the vice deans of studies, there are five men and three women.

The University Council also achieved gender parity in 2021. In the Senate, the proportion of women has increased in recent years, so that here, too, gender parity has almost been achieved. The chairmanship is also balanced, with one woman heading the University Council and one man heading the Senate.

Leadership positions University of Graz / 2021



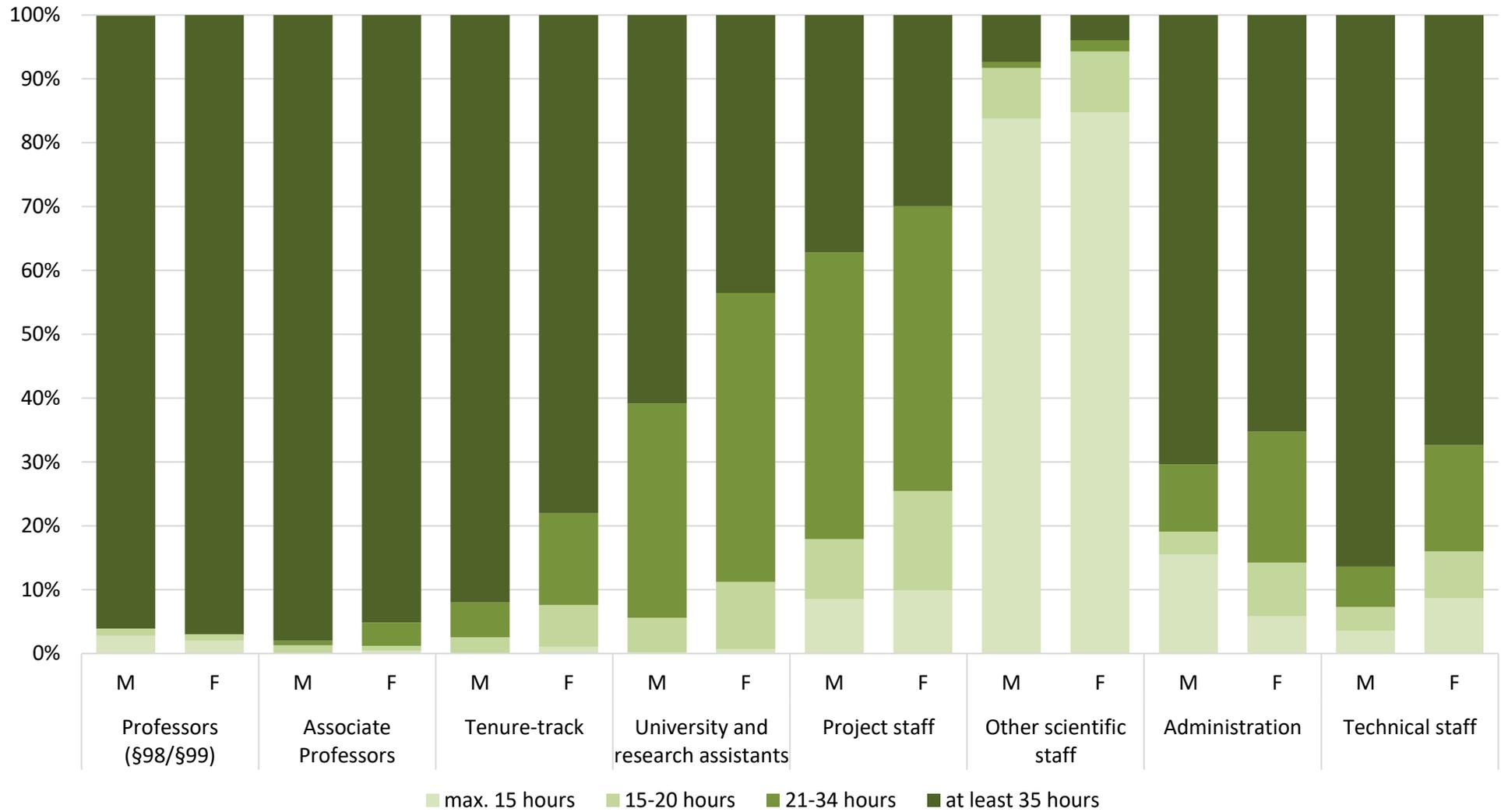
Gender differences regarding working hours

The extent of employment has an impact on the level of income, on the time available for care and other duties, and on recovery time, and thus influences the reality of employees' lives. Specifically, the level of income affects life decisions and creates different framework conditions, such as the duration of maternity leave or the framework conditions for writing scientific texts such as a dissertation. A first rough analysis of gender differences, considering part-time as employment below a full-time equivalent, shows that in the total staff in 2021, significantly fewer women work full-time (28%) compared to men (37%). This gap is evident in the scientific staff (women FTE: 19%, men FTE: 31%) as well as in the general staff (women FTE: 45%, men FTE: 56%).

The following finer analysis, in which we speak of full-time from ≥ 35 hours per week, shows a differentiated picture. At the highest hierarchical level among (associate) professors, there are no significant gender-specific differences in the extent of employment. Around 96% of employees in this group work full-time. Some emeriti, who are more than 90% men, fall into the lowest employment level below 40%, but they were excluded from the present analysis.

In all other employment groups, there is a male surplus among full-time employees, which is particularly clear among tenure-track positions and university and research assistants: among tenure-track positions, 78% of women and 92% of men are employed full-time; among university and research assistants, 44% of women and 61% of men are employed full-time. Among the project staff, 37% of the women are employed full-time compared to 44% of the men, while 8% of the female project staff are employed for a maximum of 15 hours compared to only 1% of the men. While the majority of other scientific staff are employed with max. 15 hours, there is also a noticeably higher percentage of full-time employees among men with 7% (compared to 4% among women). The trend is also evident in the administrative and technical staff, where men are more frequently employed full-time than women.

Gender differences regarding working hours



Gender Pay Gap

"Equal pay for equal work" is the socio-political goal that universities are also committed to achieving. Therefore, gender equality is also formally anchored in the budget process of the University of Graz. An important way to review the gender-equitable distribution of resources is to look at the wage gap between men and women, also known as the Gender Pay Gap (GPG). The GPG relates women's pay to that of men and describes what percentage of the average men's pay is the average women's pay. A GPG of 93%, for example, means that the average female salary is 93% of the average male salary and thus 7%-points lower.

Subsequently, the GPG is presented for all staff groups, both scientific (see table 4) and general (see table 5) university staff, in 2021. The basis for this is total salary, which includes income (basic salary) as well as special payments and current allowances. The latter include official allowances, funds for teaching and examination activities, sideline activities outside normal working hours, overtime worked as well as one-off and termination payments. There are no significant differences between the basic salary and the total salary in any staff category, with the exception of §99 (4) UG professors. In this group, women are slightly overpaid in their basic salary (median: 103%), while they are considerably underpaid in their total salary (median: 91%). In order to monitor the GPG for professorships, a "pay gap radar" was developed at the University of Graz, which enables all those involved in salary negotiations with prospective professors to determine at first glance how an offered salary affects the GPG in their own area of responsibility. The discrepancy found between basic pay and total pay gives an indication that the "pay gap radar" does have an effect on salary negotiations, but that there is still unequal pay due to special payments. In the remaining staff categories in the scientific area, there is no GPG, with the exception of the group of "Vertragsassistent*innen" (median: 92%) and (Senior) Lecturers (median: 91%). If we consider the scientific staff at the University of Graz in total, we have a GPG median of 98% and a mean of 99%, indicating no substantial GPG across all employee groups in the scientific sector.

Tabelle 4. Gender Pay Gap (Total Salary) for the scientific staff in 2021

		Female	Male	Mean	Median
Beamte	„Dozent*in“, BDG	30	71	101%	99%
	Professor, BDG §98	7	23	92%	93%
	University assistant, BDG	9	20	101%	103%
VB	„Dozent*in“, VBG	9	18	107%	102%
	„Vertragsassistent*innen“, VBG	9	7	95%	92%
KV	Assistant Professor	20	23	99%	100%
	Associated Professor	34	44	96%	93%
	Lecturer limited	18	13	98%	100%
	Professor, KV §99	20	35	95%	85%
	Professor, KV §98	47	90	95%	95%
	Professor, KV §99 (4)	9	14	93%	91%
	Student assistant (in projects)	84	51	101%	102%
	Project assistant, KV	86	48	101%	96%
	Project staff, KV	295	282	98%	100%
	Senior Lecturer/Lecturer with DA	34	19	97%	91%
	Senior Scientist/Scientist with DA	21	36	102%	102%
	Student assistant (in research)	54	29	105%	100%
	University assistant with PhD, KV	96	112	99%	100%
	University assistant without PhD, KV	198	126	101%	100%

Notes: Gender Pay Gap Mean and Median for the total salary of the scientific staff 2021. Staff are broken down into “Beamte” (Civil Service), “Vertragsbedienstete” (VB, contract staff) and “Kollektivvertrag” (KV, collective agreement staff). Categories with fewer than five employees per group are not shown due to data protection. DA: Development agreement.

In the administrative sector at the University of Graz, women are paid less than men in the employment groups I and IIb, as well as project staff in the employment group IIa according to the KV ("Kollektivvertrag", collective agreement), with a GPG of 96% and 88% (median), respectively.

In the employment groups IVa and IVb according to the KV, the median shows an underpayment of women, while the mean value does not. This is due to individual outliers, either individual women who earn significantly more than the average woman or individual men who earn significantly less.

In contrast, men are underpaid in the General administration A3 (median: 116%), in the Group "VB V1" (median: 109%), in the employment group IIIa according to the KV (median: 112%), in the case of general project staff IIIa according to KV (median: 108%) and in the case of apprentices according to KV (median: 110%).

Overall, there is no gender pay gap among the general staff - across all groups, this results in a median of 100% and a mean value of 99%. However, there are sometimes large differences between the mean and median in the individual groups, which indicates larger individual salary differences due to salary negotiations.

Tabelle 5. Gender Pay Gap (Total Salary) for the general staff in 2021

		Female	Male	Mean	Median
Beamte	General administration A1	5	5	98%	97%
	General administration A2	17	9	105%	98%
	General administration A3 (A4+A5)	15	16	113%	116%
VB	VB V1	19	8	111%	109%
	VB V2	72	27	101%	99%
	VB V3	85	18	92%	97%
KV	KV Employment group I	51	43	97%	96%
	KV Employment group IIA	97	49	99%	100%
	KV Employment group IIB	122	29	96%	96%
	KV Employment group IIIA	112	54	100%	112%
	KV Employment group IIIB	86	57	98%	99%
	KV Employment group IVA	142	86	99%	93%
	KV Employment group IVB	15	7	102%	89%
	Project staff general KV Gr.IIA	16	8	95%	88%
	Project staff general KV Gr. IIIA	20	10	110%	108%
	Apprentices KV	28	13	102%	110%

Notes: Gender Pay Gap Mean and Median for the total salary of the general staff 2021. Staff are broken down into "Beamte" (Civil Service), "Vertragsbedienstete" (VB, contract staff) and "Kollektivvertrag" (KV, collective agreement staff). Categories with fewer than five employees per group are not shown due to data protection.