

**SURVEY OF ISSUES
IMPORTANT TO
WOMEN PROFESSORS
AT EPFL AND ETHZ
2019**

ETH Women Professors Forum
<https://eth-wpf.ch>

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TABLE OF CONTENTS

TABLE OF CONTENTS	2
ABBREVIATIONS	3
EXECUTIVE SUMMARY	4
GOAL OF THE WPF SURVEY	6
METHODOLOGY	7
Topics targeted by the survey.....	7
Structure of the survey.....	9
Data analysis.....	10
RESULTS	11
Number of participants.....	11
FINDINGS	11
1. Work/life balance.....	11
2. Work culture.....	13
3. Number of women professors.....	16
4. Visibility and mentoring of women professors.....	18
5. Resources.....	20
6. Conclusions.....	21
7. Recommendations.....	22
8. Intermediate outcome.....	23
REFERENCES	24
APPENDICES	26
1. Questionnaire questions.....	26
Part 1 - Personal experience.....	26
Part 2 - Situation in Switzerland.....	27
Part 3 - Possible actions.....	28
2. Data plots with numbers.....	30
3. Comments.....	38

ABBREVIATIONS

EPFL: Swiss Federal Institute of Technology Lausanne

ETHZ: Swiss Federal Institute of Technology Zurich

EAWAG: Swiss Federal Institute of Aquatic Science and Technology

ETH WPF: ETH Women Professors Forum
(an association of women professors employed in the ETH Domain).¹

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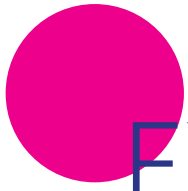
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1. Note that women employed by one of the Research Institutes of the ETH Domain who hold a professorial title from a Swiss institute of higher education are also eligible to join the WPF. The English version of the bylaws is posted at https://eth-wpf.ch/wp-content/uploads/2018/07/ByLaws29017_Statuten_E.pdf.



EXECUTIVE SUMMARY

This report presents the results of a survey conducted in January 2018 by the ETH WPF. In the survey, all female faculty members from both EPFL and ETHZ were asked to identify issues of concern to them and to evaluate possible measures to address those issues. A total of 81 women responded to the survey, 46 from EPFL (78% response rate) and 35 from ETHZ (39% response rate). The response rates were lowest for non-tenure track assistant professors at ETHZ (29%) and highest for associate professors at EPFL (88%).²

At the time of the survey, the statistics for 2017 showed that women constituted only 15% of the faculty at EPFL and 14% at ETHZ. At both schools, the proportion of women was lowest at the rank of Full Professor (9% at EPFL and 10% at ETHZ). An overwhelming majority of the respondents held the opinion that there are too few women faculty, not only in general (91% EPFL, 94% ETHZ) but also at the full professor rank (98% EPFL, 97% ETHZ), on decision-making boards (93% EPFL, 88% ETHZ) and as institute directors (89% EPFL, 91% ETHZ). The respondents endorsed the overall target that women should constitute 35% of the faculty by 2025.

Other issues raised by the respondents are clearly linked to the inadequate representation of women. Because of the low representation of women, especially at higher ranks, respondents perceived a lack of mentorship (especially by women faculty) and of role models. At the same time, women faculty are asked to be on too many committees, which negatively impacts their productivity. A critical mass of women faculty was identified as essential to change the dynamics of the work culture (96% EPFL, 100% ETHZ), which the respondents considered as playing an important role in the success of women (93% EPFL, 94% ETHZ). An unsupportive work environment manifests itself in a variety of ways, including systematic dismissal of women's contributions, condescending remarks and lack of support for family issues.

Respondents expressed concern over issues of work-life balance, relating both to family responsibilities and dual career situations. Responses to these questions showed the greatest disparity between EPFL and ETHZ, with respondents from EPFL expressing greater concern about the scarcity of daycare (82% EPFL, 67% ETHZ) and the lack of dual career programs (90% EPFL, 44% ETHZ). Respondents from both schools identified the difficulty of travel with family responsibilities as an important concern (89% EPFL, 80% ETHZ). On this issue, the measure of providing family support for conference travel was broadly supported (83% EPFL, 84% ETHZ). Making daycare readily accessible was strongly supported (95% EPFL, 97% ETHZ).

In evaluating measures to address issues that adversely affect women faculty, the respondents clearly identified an important role for academic leadership, particularly in reinforcing the importance of gender diversity and work-life balance and in raising awareness of and addressing unconscious bias. The issues raised regarding bias in the hiring and promotion processes also need to be addressed in a systematic manner at the leadership level; studies of unconscious bias show that such problems are exacerbated by the lack of clearly defined criteria for hiring and promotion. Respondents recommended that proactive measures should be taken to identify female candidates for faculty searches, to promote mentoring and integration of junior faculty in their academic units, and to retain tenured women faculty. Although inequitable access to resources was not identified as an

2. Note that this excludes non-tenure track Assistant Professors at EPFL (N=1, 100% response rate).

issue by the majority of respondents, concerns were raised over the lack of transparency in space and/or resource allocation.

Since this survey was performed, the EPFL leadership has implemented unconscious bias training for all chairs of hiring committees. In addition, the EPFL leadership has committed to establishing a Commission on the Status of Women Professors at EPFL, which will commence its work early in 2019.

At ETHZ, steps were taken to introduce regular discussions on implicit bias awareness in recruitment and promotion procedures. Furthermore, the University Assembly formed a new Gender Equality Working Group that will start its work in 2019, and will contribute to monitoring the number of women professors and their work environment, particularly with respect to gender bias.

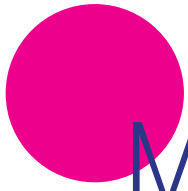


GOAL OF THE WPF SURVEY

The rationale behind the survey organised by the ETH WPF was to identify issues of importance to the majority of women professors across both EPFL and ETHZ in order to establish priorities on which the ETH WPF could focus its efforts.

There is a persistent inequality between women and men in all professions, particularly the ones that are high-paying, that come with a high social status, and that allow individuals to take leadership positions. In academia, equal opportunity (or lack thereof) is often approached from the perspective of students and junior researchers who enter an academic career and the low numbers of women who remain, the so-called 'leaky pipeline'. From the perspective of the 'leaky pipeline', women professors have succeeded. Nonetheless, significant challenges remain for those women professors.

By adopting the viewpoint of women professors, the ETH WPF survey provides a novel perspective on the status of women in academia in Switzerland. This perspective can help shed light on issues relevant for the hiring and retention of female faculty. It may also identify structural obstacles to equal opportunity and the underlying causes for persistent inequalities in the academic careers of women and men.



METHODOLOGY

The survey was conducted from January 10th to 31st, 2018. The survey was constructed as a Google Form document and sent by email to all women professors at EPFL and ETHZ. The data were collected anonymously.

TOPICS TARGETED BY THE SURVEY

The survey strove to be comprehensive in identifying issues related to women professors. It was designed based on previous surveys conducted by other organizations on similar topics. In particular, a survey conducted at the University of Adelaide in Australia in 2013 (CCI Consulting, 2013), a survey of gender equality conducted amongst students at the University of Neuchatel in 2016 (Université de Neuchatel, 2016), and a survey of women in academic medicine in the Johns Hopkins University School of Medicine (Fried et al., 1996) were used as references. To supplement those surveys and ensure a comprehensive coverage of relevant topics, a review of the literature was carried out. Six topics were selected and the following provides a detailed description of the basis for the selection.

1. Work-life balance issues

The degree to which the double burden of family and career explains the persistence of the leaky pipeline is debated. Frequently, maternity and the double burden serve as default explanations for the scarcity of women in certain professions and in high ranking positions (Hopkins, 2002; Fassa et al., 2012). However, according to Hopkins (2002), maternity, child care responsibilities and work-life balance cannot fully explain why women are still underrepresented in leading positions in academia and research. Nonetheless, measures that help parents to pursue academic careers are considered essential elements in any policy for equal opportunity (Dubach et al., 2013). The issues covered in this section of the survey include the availability of teaching leave after maternity as well as other family-related reasons, the scarcity of daycare, and the difficulty of travel with family responsibilities.

2. Dual career couples

Issues associated with dual career couples is disproportionately important for women because women are two times more likely to be part of a dual-career partnership as men (Dubach et al., 2013). Thus, challenges associated with the partner being able to pursue a meaningful career despite the need to move locations for the position are salient for women. Corollary issues are the need to commute or to make other family arrangements (e.g., separate households, part of week away from the primary home) to allow the partner to work in another location.

3. Number of women faculty members

Anna Wahl, a prominent researcher in the field of gender research in management, has proposed two approaches to analyze gender in organizations: via the structure, and via the culture (Wahl, 2015). According to Wahl, the gender structure of an organization can be described according to: (i) the proportion of men and women in the organization; (ii) the degree of segregation of tasks, positions and roles (who is to do what); and (iii) the hierarchical/power distribution between men and women. The gender structure has an impact on our perception of male and female roles. This, in turn, affects

explicit and implicit associations and biases and the propensity of women and men to engage in different fields and careers. Thus, the relative number of women professors is an important part of how they are perceived within an institution, in addition to their roles and responsibilities. In this section, the survey tackles the issue of the number of women at several levels such as the total of number of women faculty, the number of women institute directors or on decision-making boards, and the number of women full professors.

Addressing the issue of the relative number of women and men at various positions in an organization is an essential component of organizational and cultural change, but it is not sufficient. The organisational culture is also an important aspect of gender equality issues (Wahl, 2015).

4. Work culture

The organizational culture can be described as “values and behaviours that contribute to a unique social and psychological environment (...), shared attitudes, beliefs, customs, and written and unwritten rules that have been developed over time and are considered valid.”³ Ideas and beliefs about “what it takes to be a professional in a given field” are part of the organizational culture. Even though we consider them as functional, they often are influenced by implicit gender stereotypes and biases, as shown in a recent study (Leslie et al., 2015). In this study, the researchers showed that the expectation of brilliance underlies the gender distributions across academic disciplines: “The extent to which practitioners of a discipline believe that success depends on sheer brilliance is a strong predictor of women’s and African Americans’ representation in that discipline” (Leslie et al., 2015). Values and norms are often implicit and may not necessarily be the same for men and women (Wahl, 2015). This can lead to situations of double standards, where women and men are not faced with and/or evaluated according to the same standards and (implicit) norms (Foschi, 2000). Institutional culture plays an important role with regard to issues of inclusion and exclusion. These two notions are often used to address issues of diversity. They address the feeling of fitting in, of feeling welcome, being acknowledged, of having a voice, ‘that the things that one says are actually being heard, and that one gets the credit for it’ (Wahl, 2015). Various studies have also highlighted the link between institutional culture and the prevalence of attitudes of sexual harassment (Krings, 2013; Johnson et.al, 2018). Thus, in this particular section, issues related to harassment, implicit bias, respect-damaging behaviors, and the reasons for differences in the experience of men and women professors in the work place were considered.

Women in male-dominated professions may be put in a ‘token’ position, representing their ascribed (gender) category to the majority group so that ‘ordinary’ group membership eludes them.

5. Visibility of women professors and mentorship

Tokenism and critical mass are concepts that are frequently referred to in relation with visibility and the participation of members of minority groups in a given context (Kanter, 1977). A “token” effect occurs in a situation in which a member of a minority group is put into the position of representing the minority group’s perspective, subjecting him or her to stereotypical role attribution and to stereotype threat (Sekaquaptewa & Thompson, 2002). Women in male-dominated professions may be put in a ‘token’ position, representing their ascribed (gender) category to the majority group so that ‘ordinary’ group membership eludes them. Due to their apparent difference in relation to the dominant group, “tokens” capture larger awareness which renders them highly visible and subject to intense scrutiny by others, which is often experienced as social exclusion (Watts, 2010). Subjection to stereotypical role attribution and gender bias induce inequalities and diminished opportunities and recognition in the professional role and status (Valian, 1999; Bohnet, 2016). This includes less access to and benefit from influential networks and informal mentoring and sponsoring (Carter et al., 2010; Leemann et.al., 2010). Critical mass, on the other hand, can be defined as the critical number of personnel needed to make a change not as the token, but as an influential “ordinary” body. However it appears difficult to put forward a number or percentage to define critical mass (Childs and Crook, 2008). In the survey, issues related to visibility are thus linked to how much the institution promotes women and their achievements, how much recognition they receive for their

3. <http://www.businessdictionary.com/definition/organizational-culture.html>

work, and to what extent senior faculty members promote the work of their women colleagues. Issues of mentorship are identified through questions such as the absence of formal mentorship program, or the lack of mentorship by male/female mentors.

6. Resources

Two seminal studies published in the 1990's had major repercussions on policy and research with regards to gender equality in academia. Both studies were concerned with discrimination based on gender and unequal access to resources and funding. In 1995, MIT appointed a Committee on Women Faculty in the School of Science, to investigate allegations by female faculty of unequal treatment and unequal access to resources. The MIT committee 'documented differences in salary in the recent past, in amount of nine-month salary paid from grants, in access to space, resources, and inclusion in positions of power and administrative responsibility within departments or within the broader MIT community. Differences resulted in women having less or in their being excluded from important professional opportunities.' (MIT report, 1999). The committee's findings prompted immediate action by the MIT leadership to address the issue of underrepresentation of women. The second study (Wennerås and Wold, 1997) measured the extent of gender bias in the evaluation of candidates for postdoctoral fellowships awarded by the Swedish Academy of Medicine. The bias was measured by considering the number of publications, number of first author publications, and journal impact factor. By these metrics, women had to be 2.5 times more productive than the average male applicant to receive the same competence score. More recent findings show that inequalities are still widespread (Nittrouer et.al. 2018, Guglielmi, 2018). For instance, at the University of Edinburgh, the analysis in the context of the Athena Swann Charter Self Evaluation documented that a gender pay gap exists at professorial levels (Robertson, 2018).

STRUCTURE OF THE SURVEY

The survey was divided into three parts.

The first part targeted the individual's personal experience as a woman professor at either EPFL or ETHZ. In this part, the survey consisted of rating the importance of specific issues personally faced as a women professor. The issues were organized by general topic and included a list of possible issues which were to be rated on a scale of 1 to 5 (1= does not apply; 2= strongly disagree; 3= disagree; 4= partly agree; 5= fully agree).

The second part targeted the situation in Switzerland and asked the participant to rate the most important issue(s) faced by women professors in Switzerland. As for part 1, it included lists of issues with a rating system but, in addition, it also included yes/no questions. If the response to the yes/no question was a yes, follow-up questions to determine the underlying reasons for the response were provided along with space to add a comment.

The third part tackled possible actions and policies that could help the development of the careers of women faculty at EPFL/ETHZ. Similarly to part 1, it included topics with a list of issues for each item along with the opportunity to provide comments.

This report does not follow the above mentioned structure exactly. Rather, it strives to integrate information from different questions and extract a consistent, well-constrained interpretation of the data collected. The questionnaire, complete dataset and comments are provided in the appendix.

Figure 1 – Scheme of the survey's structure

PART 1	PART 2	PART 3
<i>About Personal experience: Questions about the most important issues you personally face related to:</i>	<i>About the situation in Switzerland: Most important issues women professors in Switzerland face related to:</i>	<i>Possible actions to increase the number of women professors</i>
Family	Visibility and numbers	Family friendly environment
Visibility of women professors	Hiring	Active recruitment and retention of women
Number of women professors	Promotion	Change culture and attitudes
Being part of a dual career couple	Environment	Establish specific targets for number of women
Career mentorship	Resources	Mentoring and training
	Women vs. men	Transparent allocation of resources
		Part-time positions

DATA ANALYSIS

The data collected are presented as the percentage of positive answers (fully agree + partly agree) divided by the total number of responses from which the number of 'not applicable' responses has been subtracted. The numbers are reported rounded to the nearest integer. Half-percentages are rounded up.

For yes/no questions, the answers are reported as percentage 'yes', meaning that the number of 'yes' responses were divided by the total number of respondents.

As a general rule, differences between EPFL and ETHZ will only be highlighted when the results differ by 10% or more and those instances will be indicated by a dot on the figure.



RESULTS

NUMBER OF PARTICIPANTS

All women faculty members were contacted and asked to fill out the survey. The response rate was very different for EPFL and ETHZ but was, in both cases, greater than 30%. The response was evenly distributed amongst most of the ranks (between 70-80% for EPFL and between 30-40% for ETHZ). A total of 81 women professors participated.

Table 1 – Numbers (and percent of) respondents per rank for each institution.

Rank	EPFL numbers			ETHZ numbers		
	Professors (2017)	Women professors (2017)	Respondents (% response)	Professors (2017)	Women professors (2017)	Respondents (% response)
Assistant prof. tenure-track	70	19	15 (75)	47	6	2 (33)
Assistant prof. non tenure track	1	1	1 (100)	49	14	4 (29)
Associate prof.	89	17	15 (88)	48	17	7 (41)
Full prof.	184	17	12 (70)	387	40	15 (38)
Adjunct prof.	47	5	4 (80)	117	14	7 (50)
Total Prof.	390	59	46 (78)	648	91	35 (39)

FINDINGS

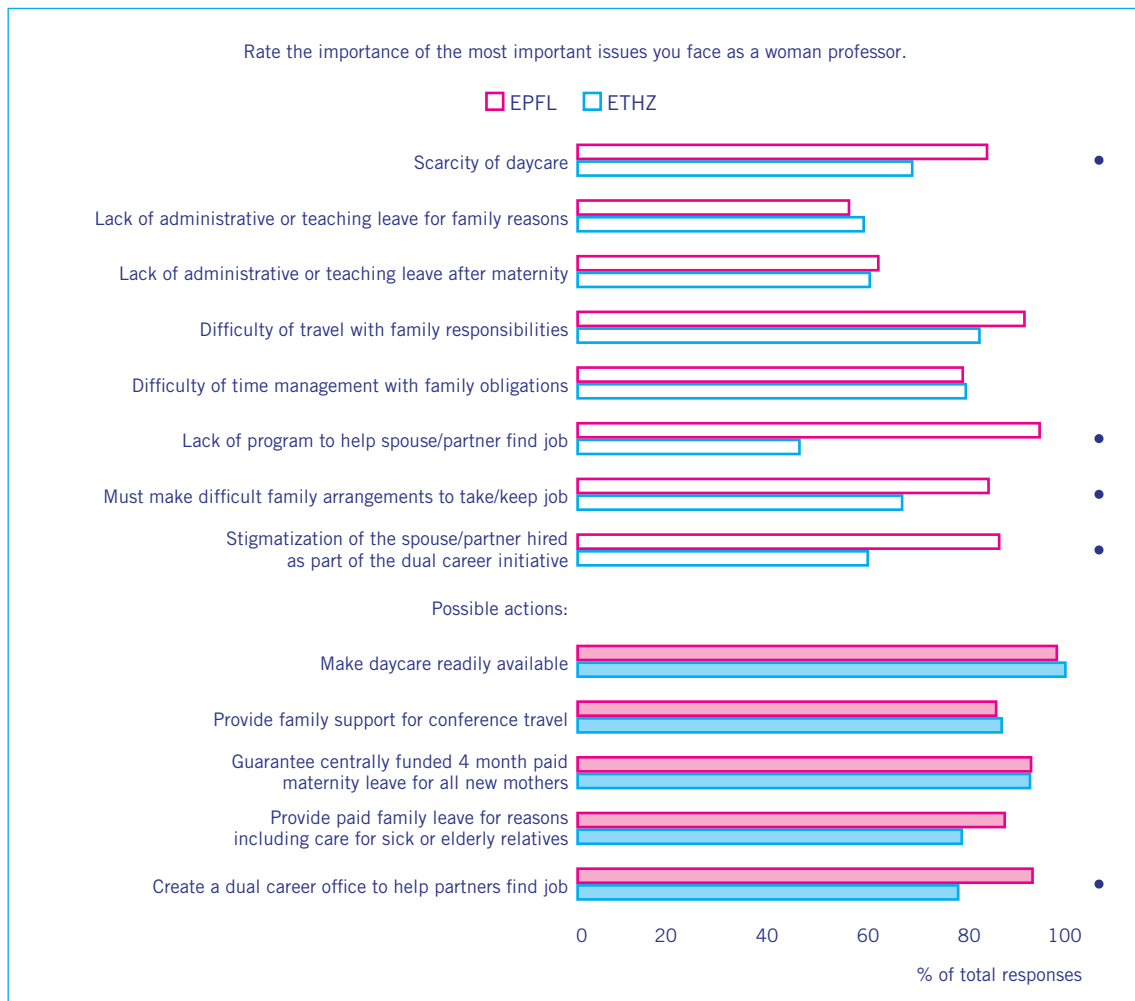
1. Work/life balance

The results show that women faculty experience difficulty in achieving work/life balance. In particular, major concerns (>60% positive responses) are the difficulty in finding daycare facilities, the difficulty of time management, and professional travel with family responsibilities (Figure 2). Based on survey results EPFL fares more poorly than ETHZ in this general category: at ETHZ, 67% think that the scarcity of daycare is still a main problem when compared to 82% for EPFL. These findings may however be linked to a generally higher demand for daycare in Western Switzerland, as evidenced through results from the survey among all cantonal universities and both federal technical institutes in 2012 (Dubach et al., 2012). They may also be related to the fact that the Dual Career Advice office at ETHZ is able to prioritize the children of women faculty on the waiting list for daycare spots. The difficulty of travel with family responsibilities (89% EPFL and 80% ETHZ) was also a salient problem but the stop-gap measure of providing family support for conference travel was broadly supported (83 and 84% for EPFL, ETHZ).

The challenges related to dual career couples were probed as well. Among EPFL women faculty, there is a consensus (92%) about the lack of specific programs to assist the spouse/partner to find a position and the need to establish a dedicated career office to help partners find a position (90%). A Dual Career Advice office exists at ETHZ, which might explain why fewer women professors are concerned about this issue (44%). The main task of this office, is to assist partners (male and female) of newly appointed ETHZ professors in finding job opportunities in Switzerland. This can be in relevant industry in Zurich/Switzerland or in academia (at ETHZ or any other Swiss university, University of applied science, or research institution). The president may provide funds to cover the partner's salary for an initial period of time and the receiving institution is expected to match this funding. Apart from the professional integration of the partner, the Dual Career Advice office of ETHZ also supports the whole family in their integration (i.e., by providing information on housing, schools/childcare, taxes, insurance, pension, etc.). A majority of EPFL faculty (82%) reported having to make difficult family arrangements to take or keep their position as compared to 65% for ETHZ. Dual career cases arise with increasing frequency and their proactive resolution is a key factor to attract women faculty at all career levels.

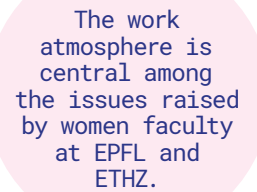
With respect to administrative or teaching leave for maternity or other family reasons, about 60% responded that this was an important issue, making it non-negligible but perhaps less widely identifiable as a major issue. This could be due to the stop-the-clock policy at both institutions (one extra year of tenure-track per pregnancy) and to the EPFL and ETHZ policy for relief from teaching for tenure-track assistant professors (PATTs) after the maternity leave.

Fig. 2 – Responses to questions and statements about issues related to work/life balance. Blue bars represent ETHZ, pink bars represent EPFL. Clear bars represent personal experience and shaded bars, possible actions. Dots mark instances for which the difference between EPFL and ETHZ results are equal to or greater than 10%.



2. Work culture

The work atmosphere is central among the issues raised by women faculty at EPFL and ETHZ and, in particular, the atmosphere in the departments/institutes and women professors' integration within these entities (Figure 3). Women faculty almost universally think that the atmosphere in the school or institute plays an important role in their success (93% and 94% of EPFL and ETHZ respondents selected 'yes' and none selected 'no'). This is in line with studies presented in the introduction: the work culture is central in the perception of employees as to whether they are included or excluded in their workplace. Amongst those who responded 'yes', systematic dismissal of suggestions/ideas by women (88% EPFL, 87% ETHZ), along with condescending remarks to women (88% EPFL, 80% ETHZ) were found to be particularly damaging. In addition, many thought that pressure to downplay the role of family (71% at both schools) and the lack of support for family issues (73% EPFL, 67% ETHZ) were also important factors determining the work culture and environment.



The work atmosphere is central among the issues raised by women faculty at EPFL and ETHZ.

Additionally, the progression of the careers of women within an institution is also an important aspect of the work culture. Hence, the promotion from one faculty rank to another can reflect implicit bias within the institution. When asked whether the promotion process was biased against women, approximately half of the respondents agreed (54% EPFL, 49% ETHZ) (Figure 3). Those who agreed with that statement were prompted to offer more detail on their thinking and they generally agreed that integration in certain departments is difficult for women professors (96% EPFL, 94% ETHZ), that there weren't enough women on promotion committees (87% for both school), and that the criteria for promotion were not clearly defined, allowing subjective criteria to dominate (92% EPFL, 80% ETHZ). Comments address specifics such as fewer invitations to participate in large consortia (e.g., NCCR), higher teaching loads, and higher expectation that women faculty take care of service and teaching needs. Interestingly, a comment pointed to the fact that the lower barrier for requests extends to students, who may be more inclined to require significant time commitment from women professors than they are from men faculty.

When asked whether the issues faced by men and women professors were different, the respondents clearly indicated that there were differences (78% EPFL, 83% ETHZ), even when comparing the same rank (Figure 3). The major reasons for these differences appear to be related to the fact that women professors spend more time caring for family members (93% EPFL, 92% ETHZ), have fewer role models (83% EPFL, 86% ETHZ), have less access to decision-making positions (74% EPFL, 61% ETHZ), and are less 'part of the club', meaning that they are not as integrated and networked as their men counterparts (94% EPFL, 86% ETHZ).

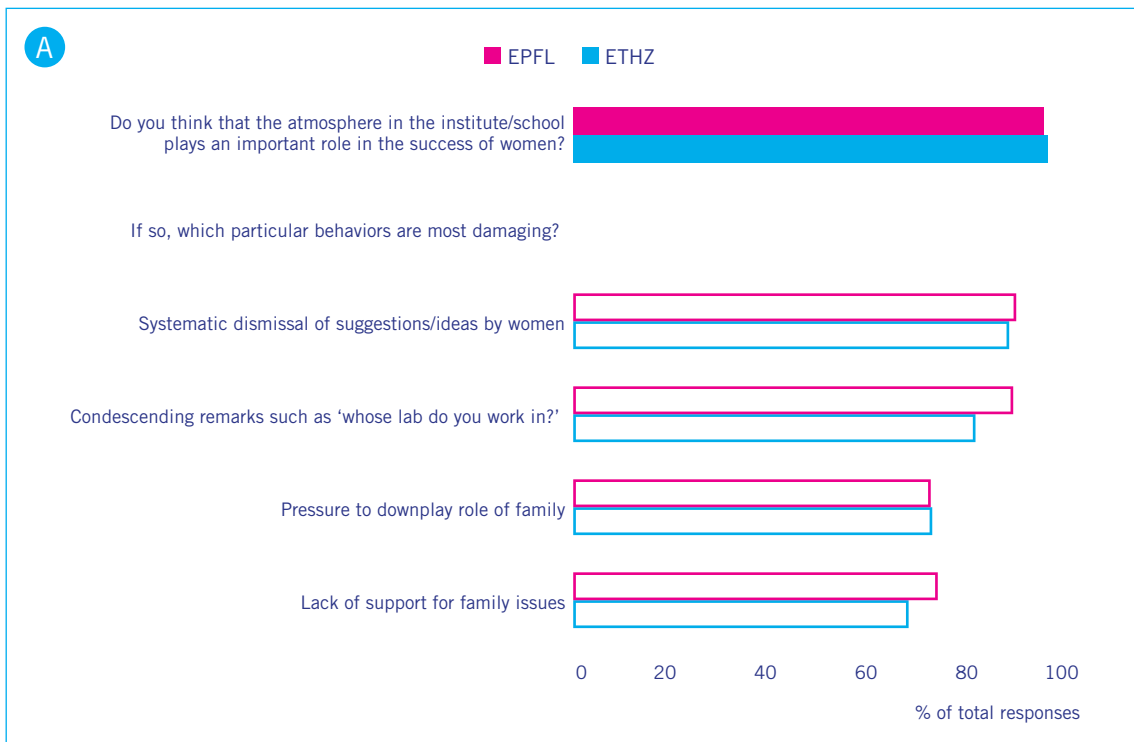
The women professor respondents pointed to a number of actions to address the perceived issues with the work culture at their respective institutions (Figure 3). The most salient finding is the significance of the tone set by the leadership. In particular, the great majority of respondents in both schools underscored the significance of the leadership highlighting the importance of gender balance (98% EPFL, 97% ETHZ). Furthermore, they agreed with statements that institute directors and deans should do more to call out specific occurrences of bias (conscious or unconscious) in public (85% EPFL, 88% ETHZ), and to clearly identify unconscious bias as an issue and take measures against it (85% EPFL, 94% ETHZ). In line with that opinion comes the associated action, which calls for the provision of unconscious bias training for deans, institute directors and other managers (98% EPFL, 88% ETHZ). At the time of the survey, unconscious bias training had been planned but had not yet started at EPFL. It has since been actively pursued for all chairs of hiring committees. At ETHZ, regular discussions on the role of unconscious biases have been introduced in several important committees like, for instance, the Tenure Committee. Written guidelines and video recommendations have been elaborated to brief new committee members.

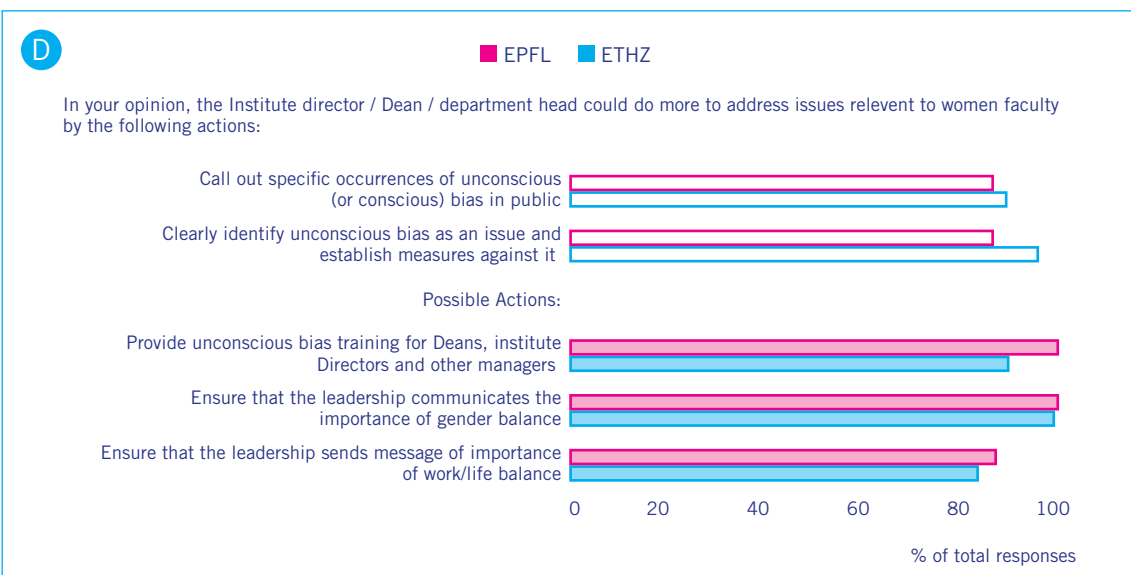
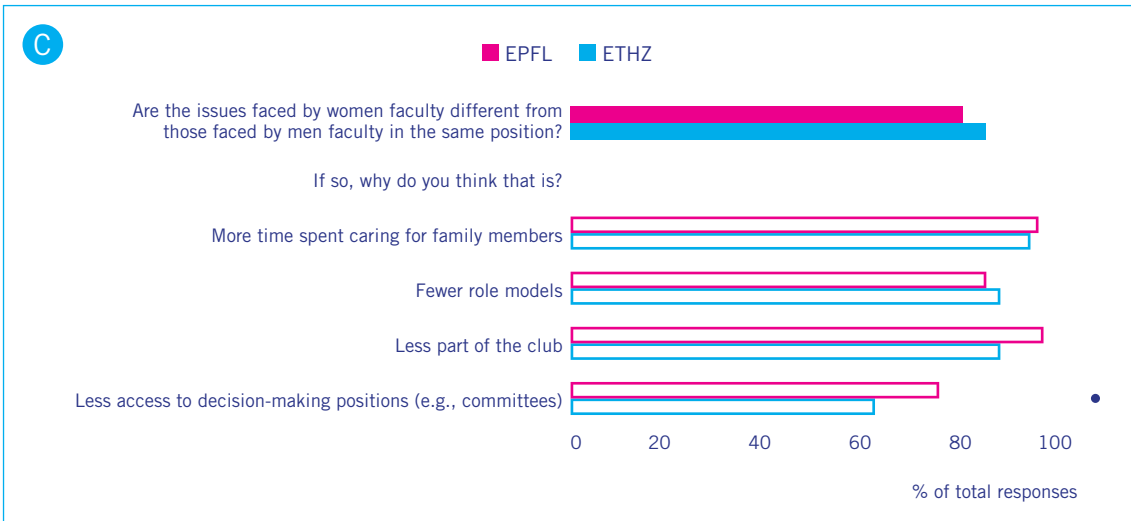
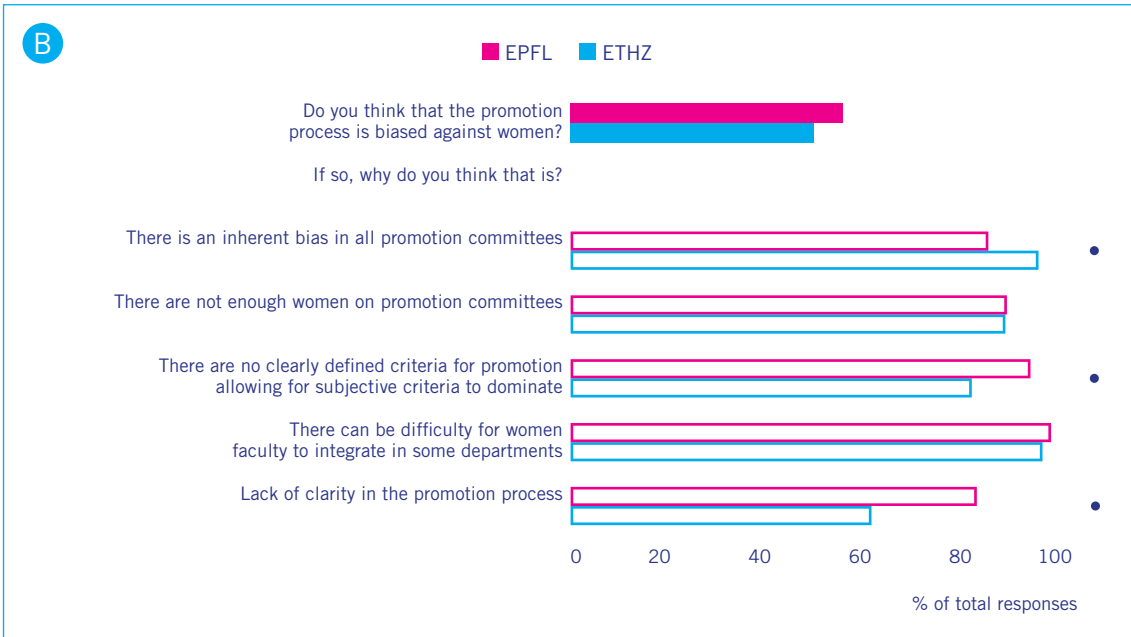
Finally, the respondents seem to agree that the leadership should both clearly articulate the importance of work/life balance (85% EPFL, 82% ETHZ) and that, more specifically, deans and institute directors should discuss or raise awareness of work/life issues in the work place (70% EPFL, 59% ETHZ).

The power of an inclusive work culture, set by the leadership, is a formidable force to be harnessed for the good of the institution.

Thus, the work culture looms large in the overall satisfaction of women professors. Of particular relevance is the importance of the tone set by communications by the leadership. This is unsurprising in a top-down environment, but the magnitude of the response to this particular mitigation strategy is remarkable. It highlights the pivotal role of one's perception of one's role in an institution and the underlying recognition of the diversity of experiences within the institution. Based on the response documented here, the power of an inclusive work culture, set by the leadership, is a formidable force to be harnessed for the good of the institution.

Fig. 3 – Responses to questions related to work culture. Blue bars represent ETHZ, pink bars represent EPFL. Clear bars represent percent agree with specific statements, lighter-colored bars represent possible actions and darker-colored bars, the percent 'yes' response to yes/no questions. Dots mark instances for which the difference between EPFL and ETHZ results is greater to or equal to 10%. A. Work culture; B. Promotion; C. Differences between men and women faculty; D. Role of leadership.





3. Number of women professors

The percent of total women faculty at both institutions is around 15% (Table 2). However, considering the distribution as a function of rank reveals that at EPFL, the largest percentage is at the tenure-track level (27%), while at ETHZ, it is at the associate level (35%). Additionally, there is a large percentage of non tenure-track women professors at ETHZ (29%), which is much greater than the percentage on tenure-track. This is significant because non tenure-track positions do not necessarily lead to a sustainable academic career, while a tenure-track position is more likely to do so. Most strikingly, the percent of women full professors is very low ($\leq 10\%$) for both schools. For EPFL, there is an even distribution of the number of women professors across ranks with 19 on tenure-track positions, and 17 associate and 17 full professors (Table 1). At ETHZ, the largest group of women professors is at the full professor rank (40 professors) with 17 associate professors and 6 tenure-track professors (Table 1).

Table 2 - Percent of women professors per rank at each institution.

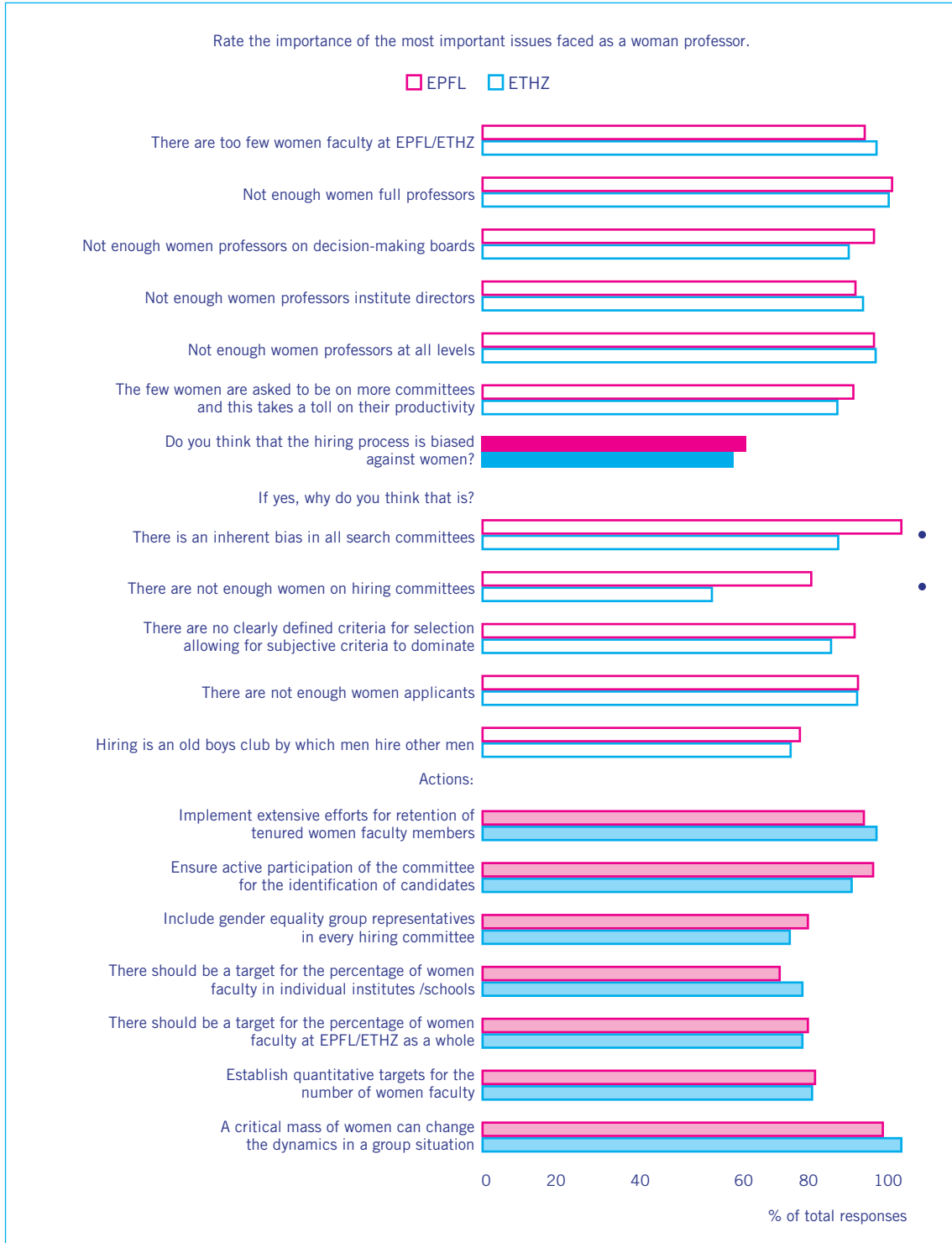
	EPFL numbers (in 2017)	ETHZ numbers (in 2017)
Rank	% women	% women
Assistant prof. tenure-track	27	13
Assistant prof. non tenure-track	100	29
Associate prof.	19	35
Full prof.	9	10
Adjunct prof.	11	12
Total Prof.	15	14

There is a clear consensus among women professors that a critical mass of women is essential to change the dynamics.

There is a clear consensus among women professors that a critical mass of women is essential to change the dynamics in a work situation (96% EPFL, 100% ETHZ) and this statement heralds back to the previous section about work culture. All the statements relating to the number of women, whether in general (91% EPFL, 94% ETHZ), at the full professor rank (98% EPFL, 97% ETHZ), on decision-making boards (93% EPFL, 88% ETHZ), as institute directors (89% EPFL, 91% ETHZ), agree in pointing out the insufficient number of women professors (Figure 4). A corollary to the issue of the low number of women professors is the fact that the women who are professors are asked to be on too many committees, negatively impacting their productivity (89% EPFL, 85% ETHZ).

About 60% of the respondents reported that they thought the hiring process was biased against women (63% EPFL, 60% ETHZ) (Figure 4). Amongst those, many pointed out that the root causes for this bias was that there weren't enough women applicants (90% EPFL, 89% ETHZ) and that there are no clearly defined criteria for selection, resulting in subjective criteria to dominate (89% EPFL, 83% ETHZ). The latter statement echoes the results of the promotion process. Other causes of the bias were that hiring is an 'old boys club' by which men hire other men (76% EPFL, 74% ETHZ) and that there are not enough women on hiring committees (79% EPFL, 55% ETHZ). On the latter point, it is interesting to note the large difference between the two schools. There is no obvious explanation for this difference, except perhaps that the requirement to include two women on each hiring committee (which is common to both institutions) is often fulfilled by external members at EPFL while ETHZ relies more on those internal to ETHZ. In fact, specific comments indicated that the women on the search committees at EPFL are often external women, which means that the dynamics of the committee are skewed since these women may not know the internal constraints. Thus, their voice on the committee may be diluted. Several comments pointed out the fact that women present themselves differently from men at interviews and that the differences in style (rather

Fig. 4 – Responses to questions related to the number of women faculty. Blue bars represent ETHZ, pink bars represent EPFL. Clear bars represent percent agree with specific statements, lighter-colored bars represent possible actions and darker-colored bars, the percent 'yes' response to yes/no questions. Dots mark instances for which the difference between EPFL and ETHZ results is greater to or equal to 10%.



than in substance) can impact the decision of the committee. Further, in order to address the issue of not having a sufficient number of women applicants and to assure that the search committee is sensitive to gender issues, the respondents agreed with the recommendation to ensure the active participation of the committee for the identification of candidates (93% EPFL, 88% ETHZ) and to include gender equality group representatives in every hiring committee (78% EPFL, 74% ETHZ). Comments included the need to carefully write the advertisements for positions in such a way that there is enough breadth so that potential women candidates do not self-exclude. Additionally, the recommendation to implement extensive efforts for the retention of tenured women faculty was broadly supported (91% EPFL, 94% ETHZ).

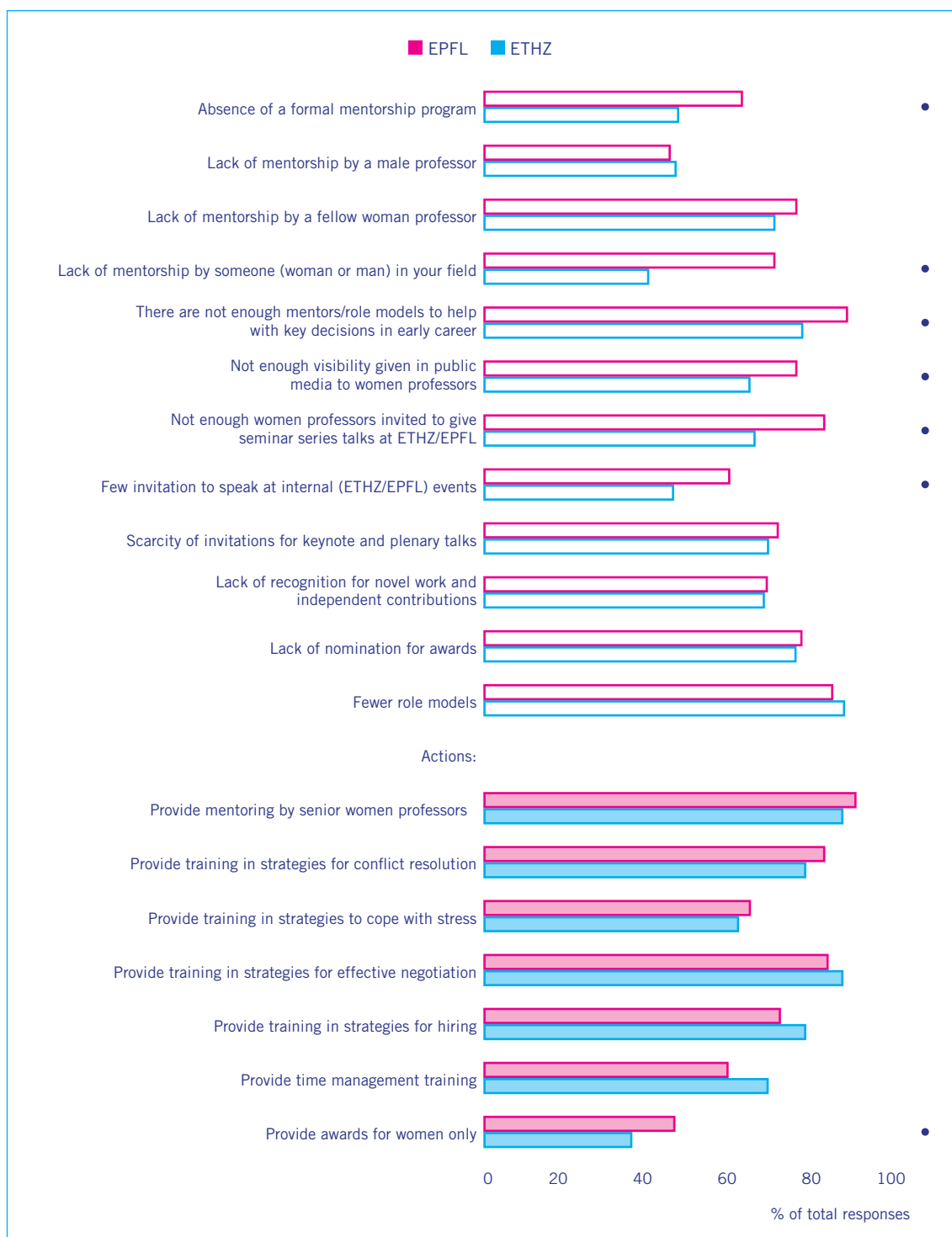
Finally, the respondents were probed regarding whether a target number of women professors should be set (Figure 4). Most respondents thought that there should be a target number of women professors at the institution level (78% EPFL, 76% ETHZ), at the institute level (71% EPFL, 76% ETHZ), but not necessarily mirroring the number of female M.S. (26% EPFL, 19% ETHZ) or Ph.D. students (48% for both schools). The action to establish quantitative targets was supported (80% EPFL, 79% ETHZ) and the mean target proposed by 2025 was 35.8% +/- 9.1 for EPFL and 36.2% +/- 8.8 for ETHZ. Other strategies were proposed, such as a target percentage of invited speakers or the creation of an additional position when an outstanding woman candidate is not selected by the faculty search committee. This type of additional hiring could be achieved by pre-hiring for positions that are planned for the future.

4. Visibility and mentoring of women professors

Other important aspects of the experience of women professors are their visibility and the availability of mentoring by more senior colleagues. The survey included several questions regarding the visibility of women professors (Figure 5). It was noted that there was a lack of nomination for awards (76% EPFL, 74% ETHZ), a lack of recognition of novel work carried out by women professors (67% for both institutions), a scarcity of keynote and plenary talks (70% EPFL, 68% ETHZ), insufficient visibility given to women professors by public media (74% EPFL, 63% ETHZ), and not enough women invited for seminars at both institutions (81% EPFL, 65% ETHZ). The latter two responses exhibited a substantial difference between EPFL and ETHZ. These findings are not surprising and are in par with the oft-reported scarcity of women speakers at conferences (Nittrouer et.al., 2018).

Mentorship was a subject that appeared to resonate with only a part of the respondents. Between 46 and 62% of respondents (62% EPFL, 46% ETHZ) found the absence of a formal mentorship program to be an important issue. Lack of mentorship by someone in the field (man or woman) (69% EPFL, 39% ETHZ), or a man professor (44% EPFL, 46% ETHZ) all elicited limited consensus. Much like the topic of visibility, there was a big difference in the responses of EPFL and ETHZ professors. In contrast, the lack of mentorship by a fellow woman professor seemed to be of greater importance (74% EPFL, 69% ETHZ). Another exception to that trend is the response to the statement that there are not enough mentors/role models to help with key decisions in early career, with which the majority of respondents agreed (86% EPFL, 76% ETHZ). In line with these two results, the respondents supported the provision of a mentoring program by senior women professors (88% EPFL, 85% ETHZ).

Fig. 5 – Responses to questions related to the visibility of women faculty and their mentoring. Blue bars represent ETHZ, pink bars represent EPFL. Clear bars represent percent agree with specific statements, and light-colored bars represent possible actions. Dots mark instances for which the difference between EPFL and ETHZ results is greater to or equal to 10%.



5. Resources

Both EPFL and ETHZ contribute funding and infrastructure to each professor's group. Hence, when the question of whether the respondents thought that women faculty had less access to facilities and resources, it was significant that less than 50% responded yes (46% EPFL, 34% ETHZ) (Figure 6). Of those who responded yes, many reported that women professors had relatively less space/facilities than male colleagues (75% EPFL, 82% ETHZ) and that the problem could be due to a legacy situation (90% EPFL, 100% ETHZ). More importantly, they reported that there was lack of transparency in resources/space allocation (100% EPFL, 82% ETHZ) (Figure 6).

The concern about the lack of transparency in the allocation of space and resources is also salient.

The concern about the lack of transparency in the allocation of space and resources is also salient when the respondents are asked about actions that institute directors/deans could take to address issues relevant to women faculty: the majority (76% EPFL, 70% ETHZ) responded that transparency in allocation of resources/space would be desirable and called for making the data on space and resource distribution available for each institute (96% EPFL, 91% ETHZ), establishing a transparent process for requesting additional resources or space (93% EPFL, 94% ETHZ) and the implementation of shared resources when and where warranted (90% EPFL, 91% ETHZ) (Figure 7). Transparency remains a fundamental requirement for healthy institutions and women faculty are keenly aware of it. Such a call could also be driven by their perceived penalization due to the work culture.

Fig. 6 – Responses to questions related to access to resources. Blue bars represent ETHZ, pink bars represent EPFL. Clear bars represent percent agree with specific statements, light-colored bars represent possible actions, and dark-colored bars the 'yes' responses to yes/no questions. Dots mark instances for which the difference between EPFL and ETHZ results is greater to or equal to 10%.

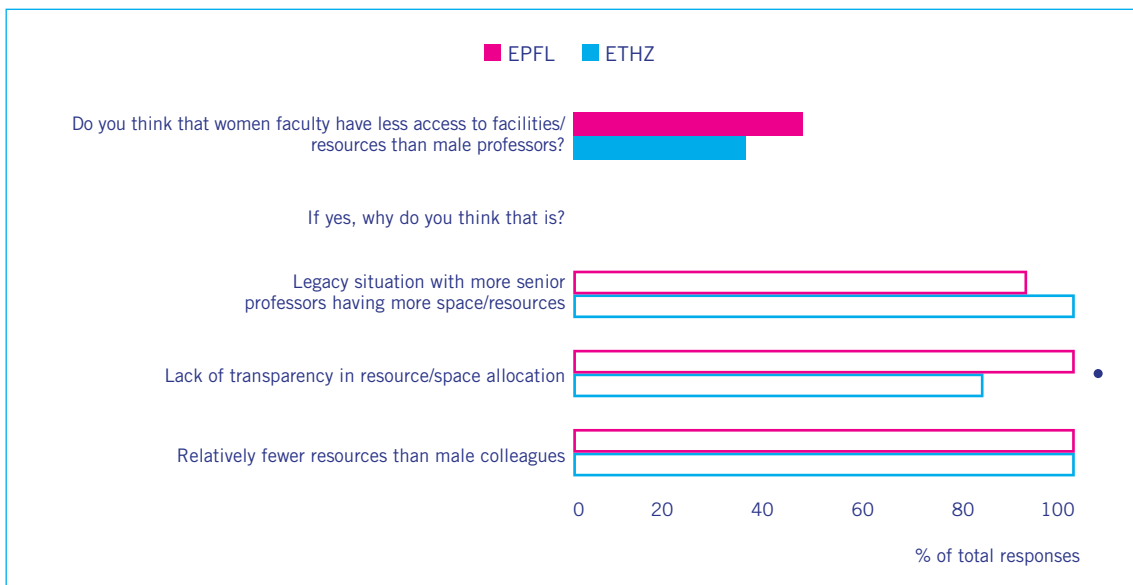
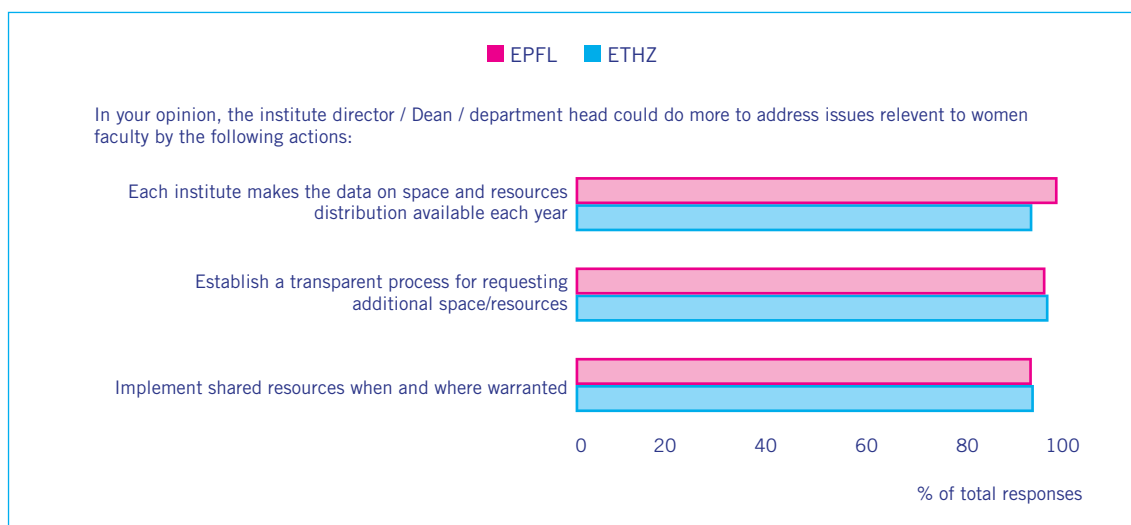


Fig. 7 – Responses to questions related to the allocation of resources. Blue bars represent ETHZ, pink bars represent EPFL. Light-colored bars represent possible actions.



6. Conclusions

Gender diversity among teaching staff has been found to have a direct impact on student performance and scholarly progression. Results from a study exploiting data from the U.S. Air Force Academy, where students are randomly assigned to professors for a wide variety of mandatory standardized courses suggest that while the professor’s gender has little impact on male students, it has a significant effect on the performance of female students in math and science classes, on their likelihood of taking future math and science courses, and on their likelihood of graduating with a STEM degree (Carrell et al., 2009). And the estimates point to the largest impact for female students with very strong math skills (Carrell et al., 2009).

Thus, it is of paramount importance to consider, understand and alleviate the issues impacting the majority of women professors, in order to ensure that future generations of female students have good role models. Additionally, it is essential that the talents of 50% of the population not be overlooked because of improper policies and a lack of understanding of the conditions propitious to the success of women professors.

This survey has shown convincingly that the major issues facing women professors are ultimately linked to their low numbers. The looming issue of the work culture is a challenge because of the inertia of human social mores, however, it is also likely that the influx of a large number of women professors would profoundly and rapidly alter the work culture. Thus, the minority status of women (and other minorities) in the academic environment is at the root of many of the other issues.

Further, work/life balance is a general problem that is felt by women and men alike.

However, because women frequently also fulfill care-giving responsibilities, they often bear a greater burden of the family duties than men, resulting in greater difficulty in achieving work-life balance. This is reflected in the survey, as 93% (EPFL) and 92% (ETHZ) report that women spend more time caring for family members. The other issue that was raised unambiguously is that of resource allocation. Women professors perceive that more transparency of the distribution of resources as well as a transparent procedure for the request for additional resources would be beneficial. This is likely because of the finding by several studies that women are allocated fewer resources (e.g., the MIT report) and that they do not negotiate as aggressively as their men counterparts (Bohnet, 2016). Thus, a transparent system would correct this structural bias in resource allocation and provide a more equitable distribution. This is because negotiating with full information requires a considerably less aggressive stance than negotiating solely through self-promotion.

This survey has shown convincingly that the major issues facing women professors are ultimately linked to their low numbers.

7. Recommendations

The following recommendations are put forth to address issues identified by this survey:

Work/life balance: Additional efforts in enhancing the availability of child care, providing support for parents to attend meetings with their young children, aligning meeting schedules with family responsibilities must be made. It is important to acknowledge that men professors may also struggle with work/life balance. The issue of dual careers should be tackled with a central fund that allows for the hiring of couples across faculties.

Work culture: The message put forth by the management is evidently of paramount importance. The importance of gender equality and the equal footing of men and women should be unambiguously articulated and emphasized at all levels. The consequences of a lack of gender equality should be explicitly stated as negative for EPFL/ETHZ. Additionally, the grievance procedures should be reviewed in order to identify possible gender (or other) biases both in the type of accusations leveraged against women professors, as well as their handling and outcomes.

Number of women professors: More aggressive measures to hire women professors should be implemented. The identification of top women candidates and their active recruitment should be done for every call. For institutes with a proportion of women below a certain cutoff (e.g., 25%), calls directed to hiring women should be mandated. In addition, each school/institute should have a reserved budget for direct calls of senior female candidates or dual career solutions aimed at hiring women as the primary hire. Furthermore, a greater proportion of the administration (e.g., Deans, Institute Directors, Doctoral School Directors) should be women. Equal opportunity should be firmly embedded within the top management at both institutions and be provided with adequate resources. For instance, the opportunity to create a Vice-president for Equal Opportunity might be considered at both institutions. The mandate associated with such a position should include a gatekeeping function to ensure that hiring procedures are pro-active in attracting women and that appointable shortlisted women are hired. Furthermore, a dual-career budget should be established/consolidated with the express goal of helping the appointment of women facing dual-career constraints by providing bridge funding for their partners. The above-mentioned position should be involved in the allocation of the dual-career budget.

The mandate associated with such a position should include a gatekeeping function to ensure that hiring procedures are pro-active in attracting women.

Visibility and mentoring: More efforts can be made to highlight the notable contributions of women professors and seminar series should strive to invite more women speakers. Any conference sponsored by EPFL or ETHZ should require a specific percentage of invited women.

Resources: The transparent allocation of resources should be implemented within each Institute. A clear procedure for the allocation of additional (or less) space or financial resources should be put into place. At regular intervals, the space and resource distribution should be evaluated and corrected.

8. Intermediate Outcome

The results from this survey were presented to various groups as well as individuals at EPFL, including the Gender Equality Advisory Board at EPFL, the Meeting of the EPFL President and Vice-presidents, and the Meeting of the Deans with the President. As a result of the findings of this survey, the creation of a Commission on the Status of Women Faculty at EPFL was proposed and approved. This Commission will investigate the status of women by collection and interpreting both quantitative and qualitative data related to relevant topics. Quantitative data encompass the allocation of resources (salary, space, internal funds), leadership position distribution, prizes/chairs allocation (named chairs, internal prizes and awards), teaching obligation distribution, committee assignments, hiring record at level of institutes, and grievance numbers, distribution by gender, type, and outcome. Qualitative information will be obtained through faculty interviews and will target work environment/atmosphere, experience during hiring and retention, interaction with central administration, work-life balance as well as experience in grievance procedures.

The Commission will deliver a report that will include specific recommendation to be implemented by the EPFL administration. The work of this commission is aimed at enhancing the quality of the work environment at EPFL and at continuing to raise EPFL's attractiveness to prospective students and faculty.

At ETHZ, the University Assembly introduced a Gender Equality Working Group that closely collaborates with the Gender Delegate and the Equal Opportunity Office in order to address both the low number of women professors and the associated work culture issues.

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APPENDICES

1. QUESTIONNAIRE QUESTIONS

Part 1 - Personal Experience

Please rate the importance of what you think is/are the most important issue(s) that you personally face as a woman professor at EPFL/ETHZ (1 to 5 scale)

Issues related to family and dual career couple

- Lack of administrative or teaching leave after maternity
- Lack of administrative or teaching leave for family reasons (e.g., elderly relatives, sick relatives, etc..)
- Scarcity of daycare
- Difficulty of travel with family responsibilities (e.g., young children, sick relatives, elderly parents)
- Difficulty of time management with family obligations (e.g., young children, sick relatives, elderly parents)

Issues related to visibility of women professors and career mentorship

- Lack of nomination for awards
- Lack of recognition for novel work and independent contributions
- Scarcity of invitations for keynote and plenary talks
- Few invitation to speak at internal (ETHZ/EPFL) events

Issues related to the number of women faculty at EPFL/ETHZ:

- There are too few women faculty at EPFL/ETHZ
- The few women are asked to be on more committees and this takes a toll on their productivity
- There are not enough mentors/role models to help with key decisions in early career
- A critical mass of women can change the dynamics in a group situation

Issues and challenges related to being part of a dual career couple:

- Lack of specific program to help spouse/partner find position
- Stigmatization of the spouse/partner hired as part of the dual career initiative
- Must make difficult family arrangements to take/keep position at EPFL/ETHZ
- Partner is unhappy because had to give up career
- Not much help from the partner for household/family responsibilities

Issues related to career mentorship

- Absence of a formal mentorship program
- Lack of clarity in the promotion process
- Lack of mentorship by someone (woman or man) in your field
- Lack of mentorship by a fellow woman professor
- Lack of mentorship by a male professor

In your opinion, the Institute director /Dean /department head could do more to address issues relevant to women faculty by the following actions:

- Discussion/awareness of work/life issues
- Equal access to support/resources for women relative to men professors
- Transparency in allocation of resources/space
- Clearly identify unconscious bias as an issue and establish measures against it
- Call out specific occurrences of unconscious (or conscious) bias in public
- No need to do more (he/ she does enough)

Part 2 - Situation in Switzerland

Please rate the most important issue(s) that women professors face in Switzerland (in general, not necessarily you personally).

Issues related to visibility of women professors

- Not enough women professors on decision-making boards
- Not enough women professors as institute directors
- Not enough women full professors
- Not enough women professors at all levels
- Not enough women professors invited to give seminar series talks at ETHZ/EPFL
- Not enough visibility given in public media to women professors

In your opinion, what are the most efficient strategies to increase the number of women professors?

- There should be a target for the percentage of women faculty at EPFL/ETHZ as a whole
- There should be a target for the percentage of women faculty in individual institutes /schools
- The target percentage of women professors should mirror that of students at M.S. level
- The target percentage of women professors should mirror that of students at Ph.D. level

Do you think that the hiring process is biased against women?

If so, why do you think that is? Please rate the following statements (1 to 5 scale):

- There is an inherent bias in all search committees
- There are not enough women on hiring committees
- There are no clearly defined criteria for selection allowing for subjective criteria to dominate
- There are not enough women applicants
- Hiring is an old boys club by which men hire other men

Do you think that the promotion process is biased against women?

If so, why do you think that is? Please rate the following statements (1 to 5 scale):

- There is an inherent bias in all promotion committees
- There are not enough women on promotion committees
- There are no clearly defined criteria for promotion allowing for subjective criteria to dominate
- There can be difficulty for women faculty to integrate in some departments

Do you think that the atmosphere in the institute/school plays an important role in the success of women?

If so, what particular behaviors are most damaging? Please rate the following statements (1 to 5 scale):

- Pressure to downplay role of family
- Lack of support for family issues
- Systematic dismissal of suggestions/ideas by women
- Condescending remarks such as 'whose lab do you work in?'

Do you think that women faculty have less access to facilities/resources than male professors?

If so, what is the specific issue?

- Relatively less space/facilities than male colleagues
- Relatively fewer resources than male colleagues
- Lack of transparency in resource/space allocation
- Legacy situation with more senior professors having more space/resources

Are the issues faced by women faculty different from those faced by men faculty in the same position (e.g., assistant professor tenure track)?

If so, in what ways? (statements are for women vs. men)

- More time spent caring for family members
- Fewer role models
- Less part of the club
- Less access to space/facilities
- Less access to decision-making positions (e.g., committees)
- Higher teaching load

Part 3 - Possible actions

What do you think would be helpful policies to help the development of the careers of women faculty at EPFL/ETHZ?

Create and advertise a family friendly environment

- Put in place a dedicated dual career office tasked with helping partners find positions (inside or outside EPFL/ETHZ)
- Make daycare readily available
- Provide paid family leave for reasons including care for sick or elderly relatives
- Limit meeting times to allow parents to pick up their children from school
- Include testimonials from dual career couples on website

- Provide better family support for conference travel
- Guarantee centrally funded 4 month paid maternity leave for all new mothers

Active recruitment and retention of women

- Include gender equality group representatives in every hiring committee
- Ensure active participation of the committee for the identification of candidates
- Implement extensive efforts for retention of tenured women faculty members

Change culture and attitudes

- Provide unconscious bias training for Deans/ institute Directors and other managers
- Ensure that the leadership sends message of importance of work/life balance
- Ensure that the leadership communicates the importance of gender balance

Establish specific targets for the number of women faculty at EPFL/ETHZ

- Establish quantitative targets (e.g., 33% women professors by 2025)
- Establish qualitative targets (e.g., the same percentage as women students)

Provide mentoring and training programs for post-docs

- Provide training on how to apply for faculty positions
- Provide training on strategies for running a lab/group
- Provide training on effective grant writing
- Provide mentoring by senior women professors
- Provide awards for women only

Transparent allocation of space and resources

- Each institute makes the data on space and resources distribution available each year
- Establish a transparent process for requesting additional space/resources
- Implement shared resources when and where warranted

Part-time shared faculty position

- Establish a pilot program for shared faculty position

Provide training specifically for women professors

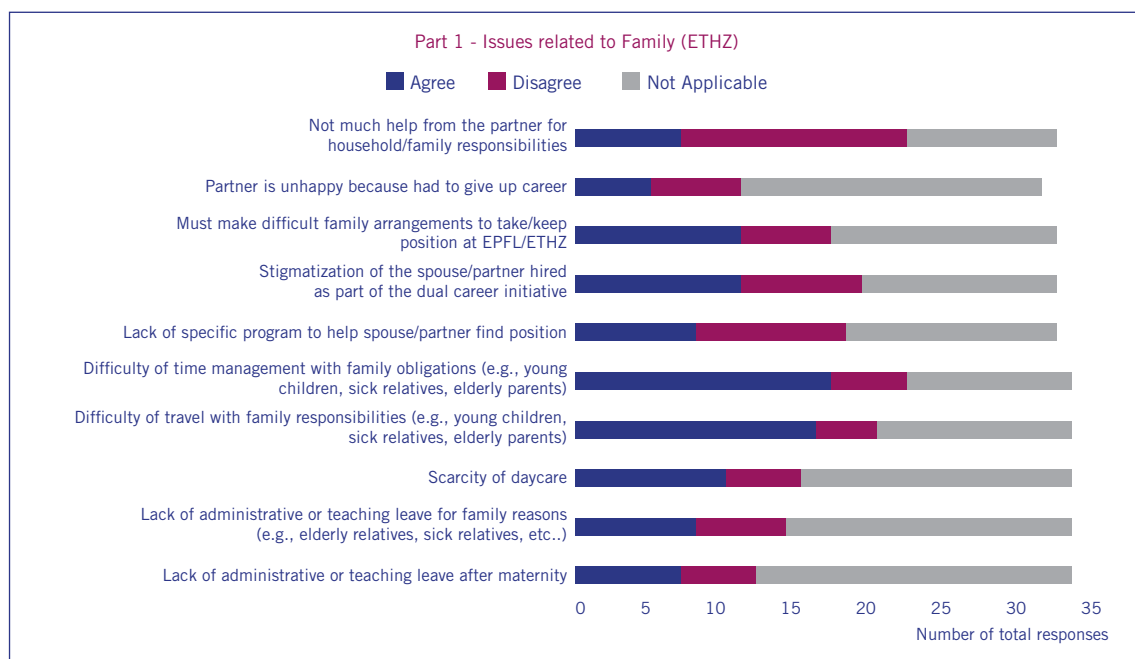
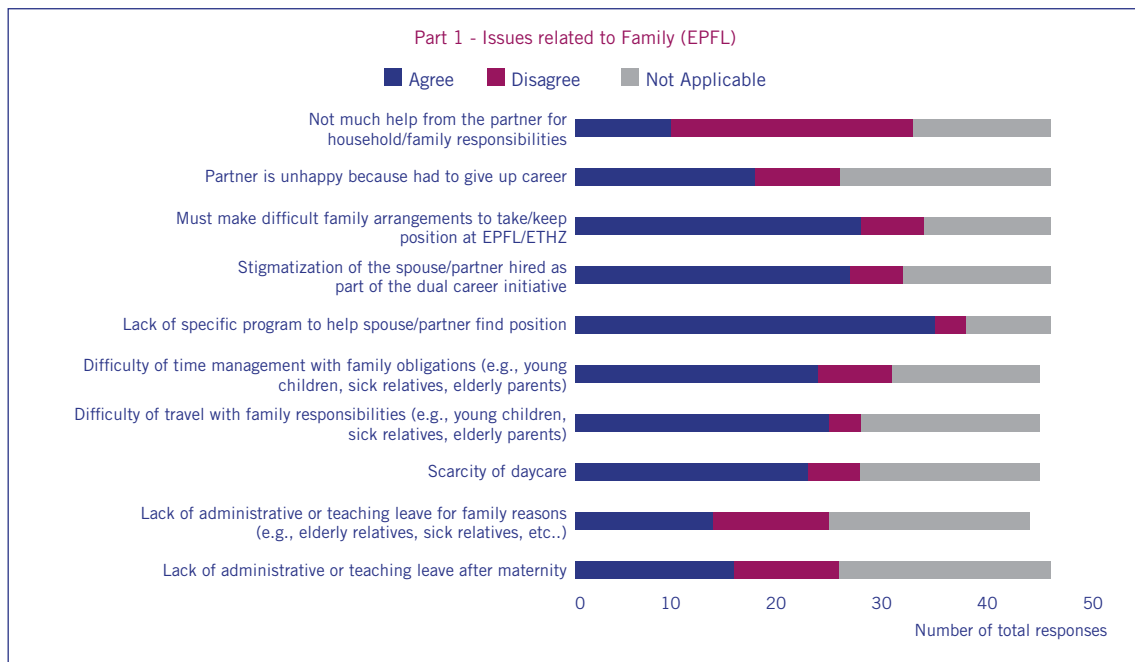
- Provide time management training
- Provide training in strategies for hiring
- Provide training in strategies for effective negotiation
- Provide training in strategies to cope with stress
- Provide training in strategies for conflict resolution

2. DATA PLOTS WITH NUMBERS

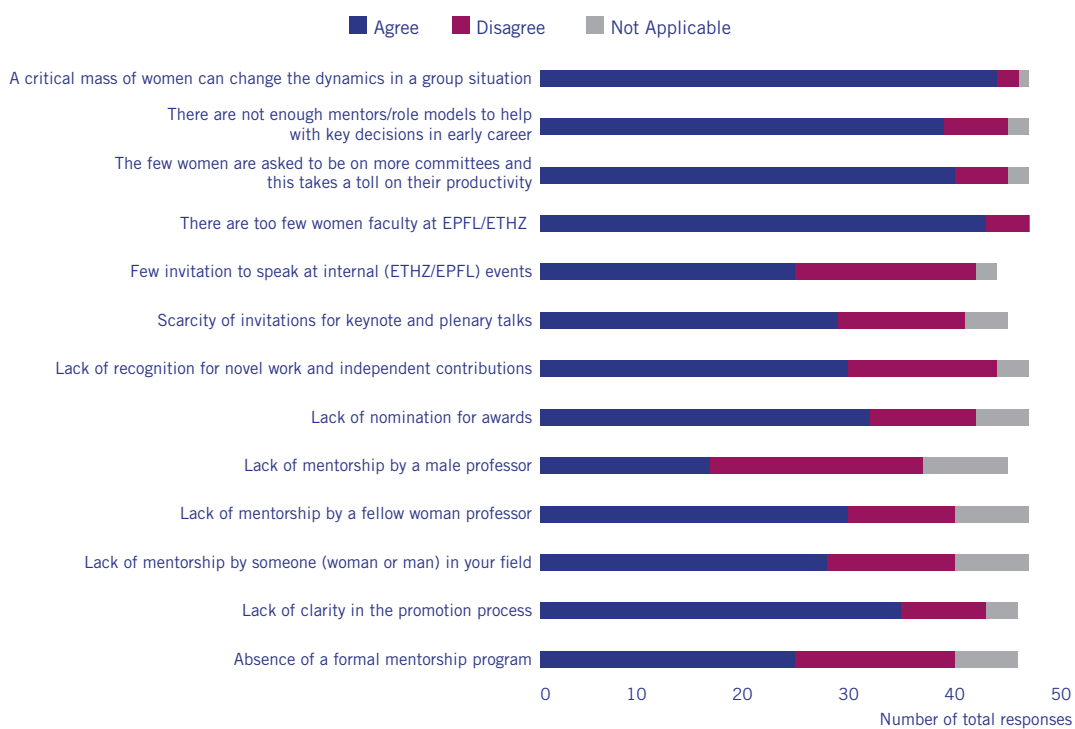
Bars length represent the number of answers. For most questions, possible answers were: Fully agree; Partly agree; Don't agree; Strongly disagree; Non-applicable. For simplicity, "fully agreed" and "partly agreed" answers were pooled and represented in dark blue ("agree"), and "don't agree" and "strongly disagree" were pooled and represented in purple ("disagree"). In part 2 of the questionnaire, a few questions could be answered either Yes or No: these answers are represented as blue and pink bars. Only the respondent who answered "yes" could proceed answering the further questions, those who answered "no" were directed to the following part of the questionnaire.

At the end of every question, respondents were invited to add comments. The list of comments collected is reported at the end of this document.

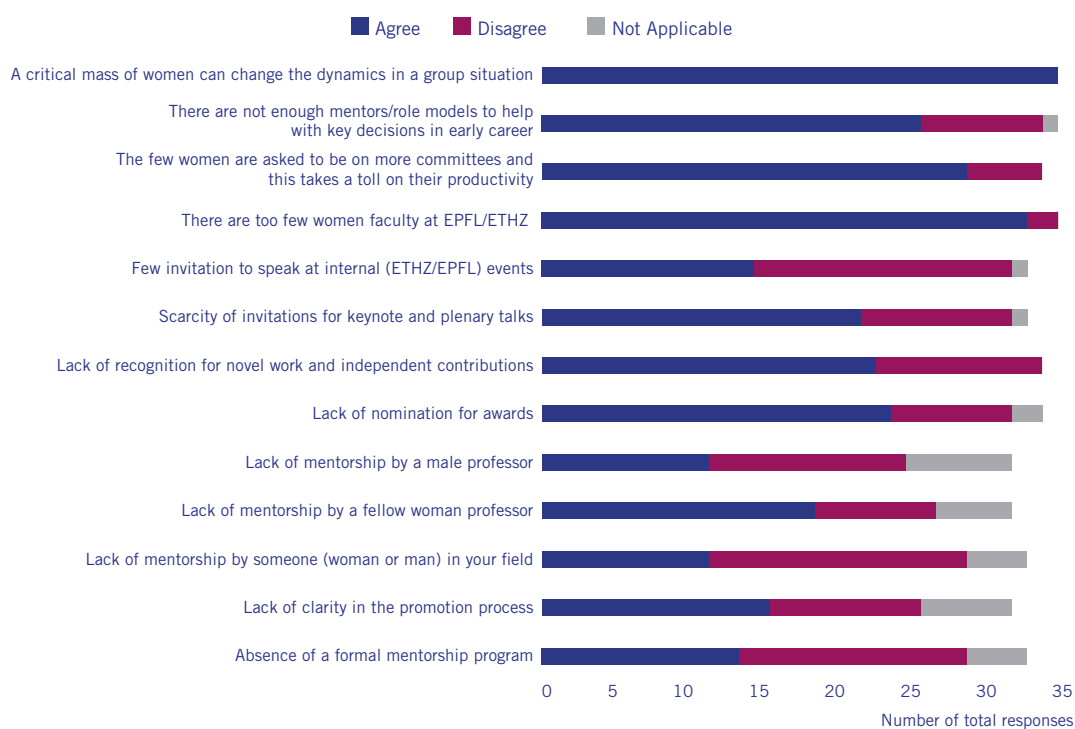
Part 1. Please rate the importance of what you think is/are the most important issue(s) that you personally face as a woman professor at EPFL/ETHZ (1 to 5 scale)

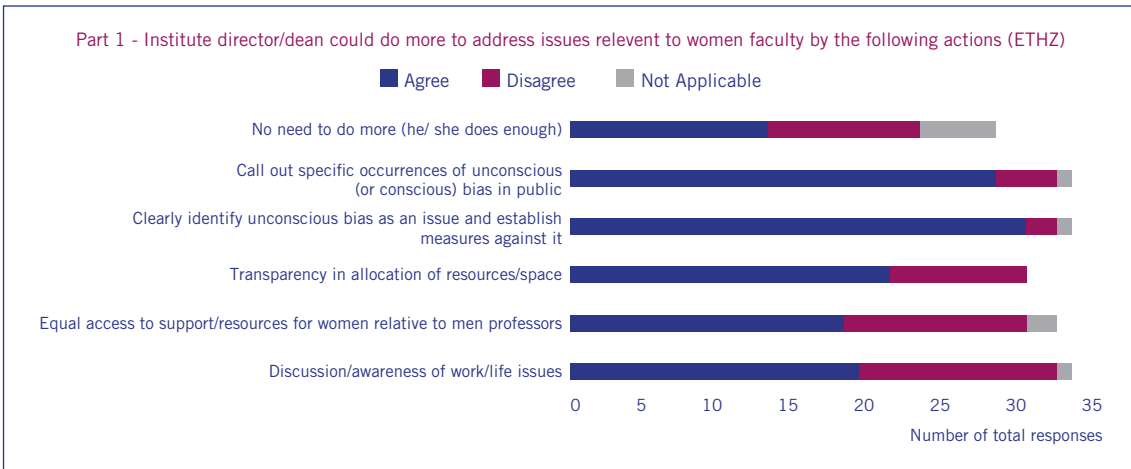
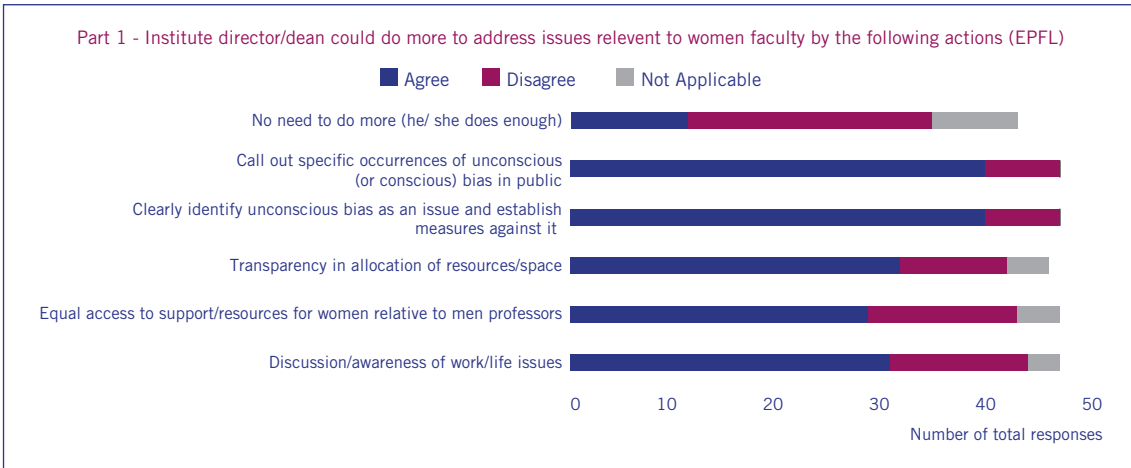


Part 1 - Issues related to visibility of women professors and career mentorship (EPFL)

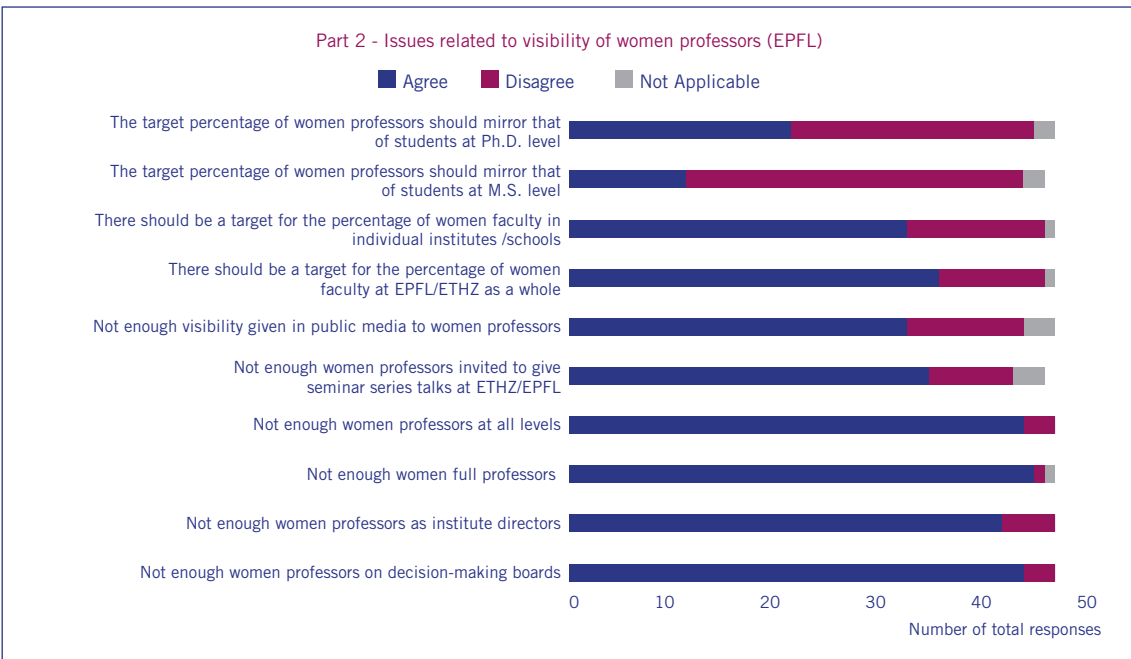


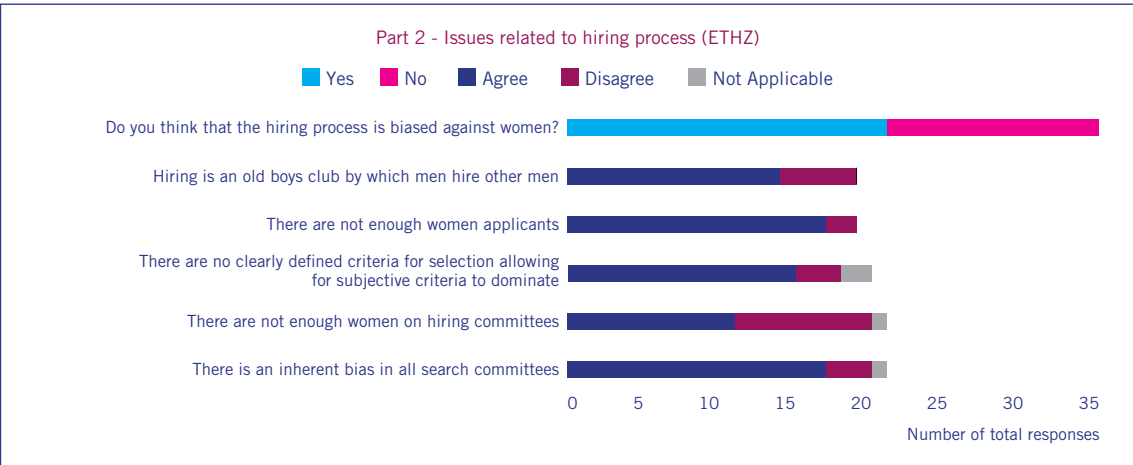
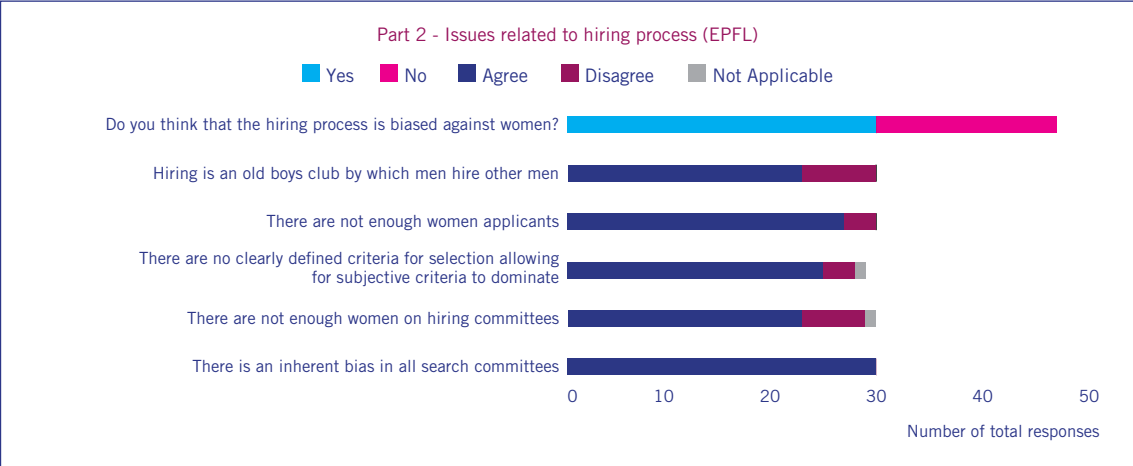
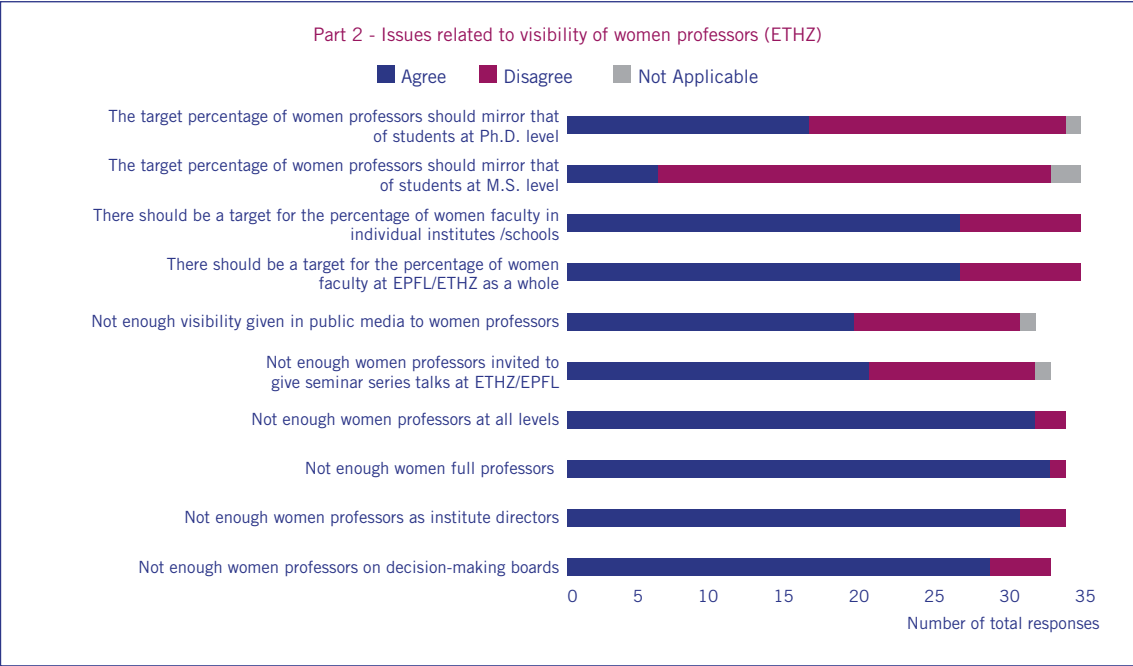
Part 1 - Issues related to visibility of women professors and career mentorship (ETHZ)

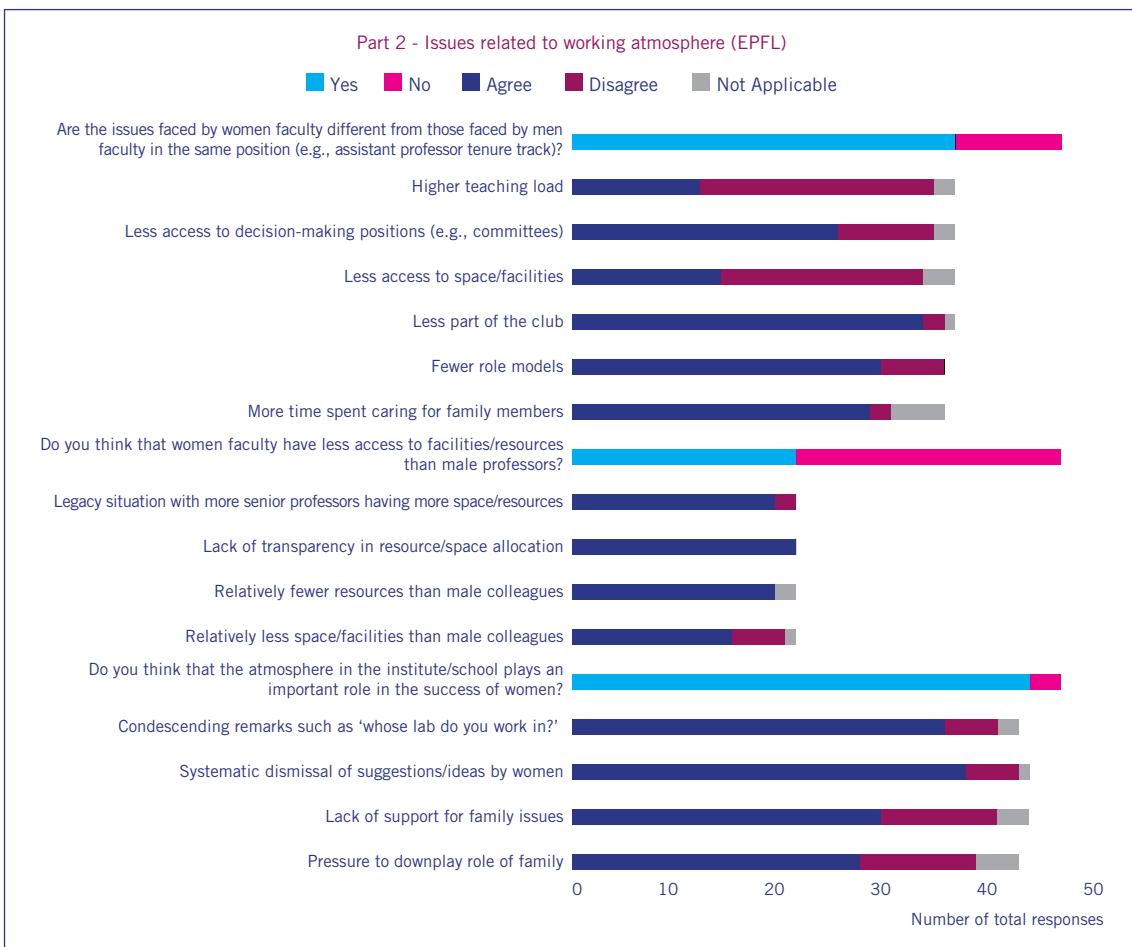
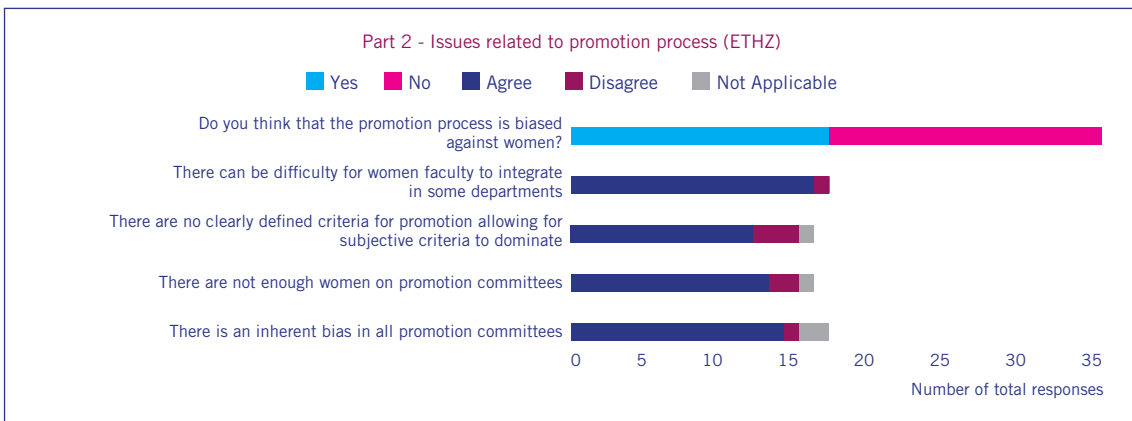




Part 2 – About the situation in Switzerland. Please rate the most important issue(s) that women professors face in Switzerland (in general, not necessarily you personally).

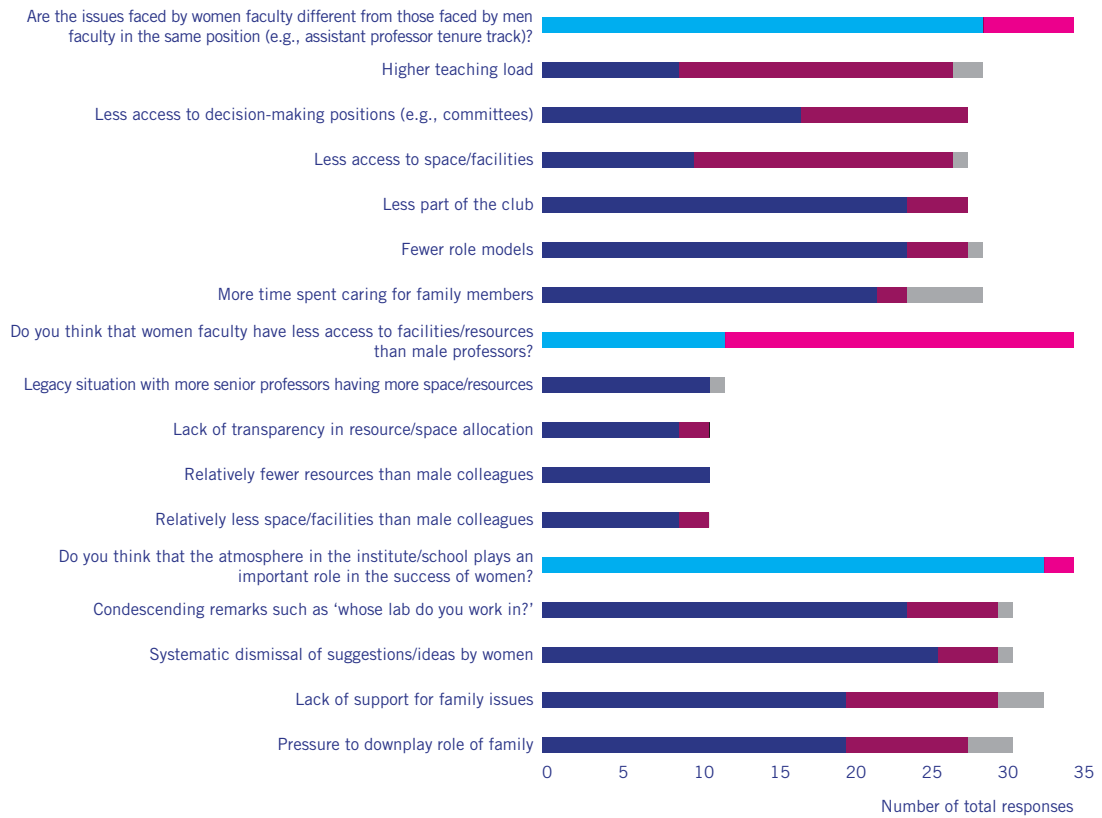




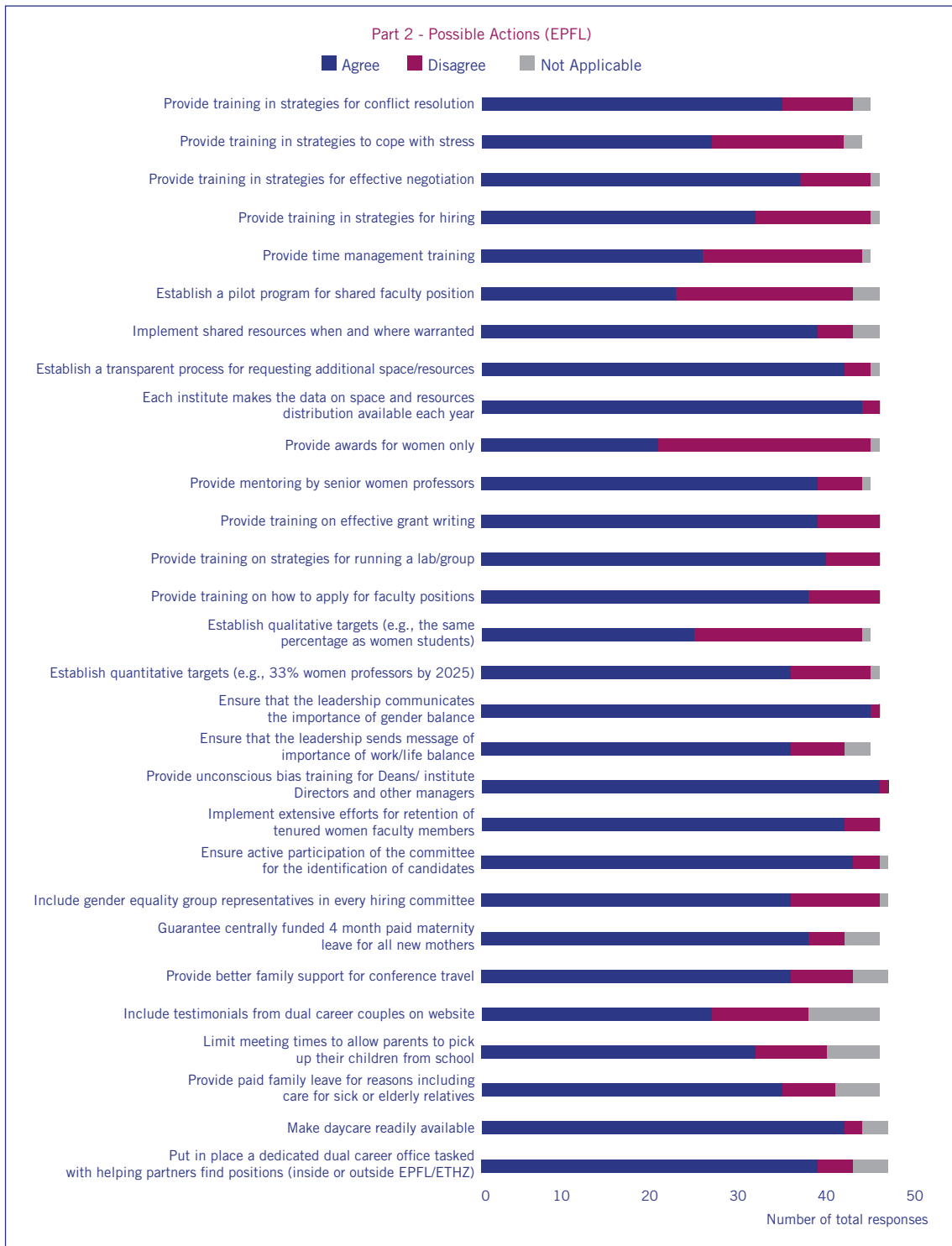


Part 2 - Issues related to working atmosphere (ETHZ)

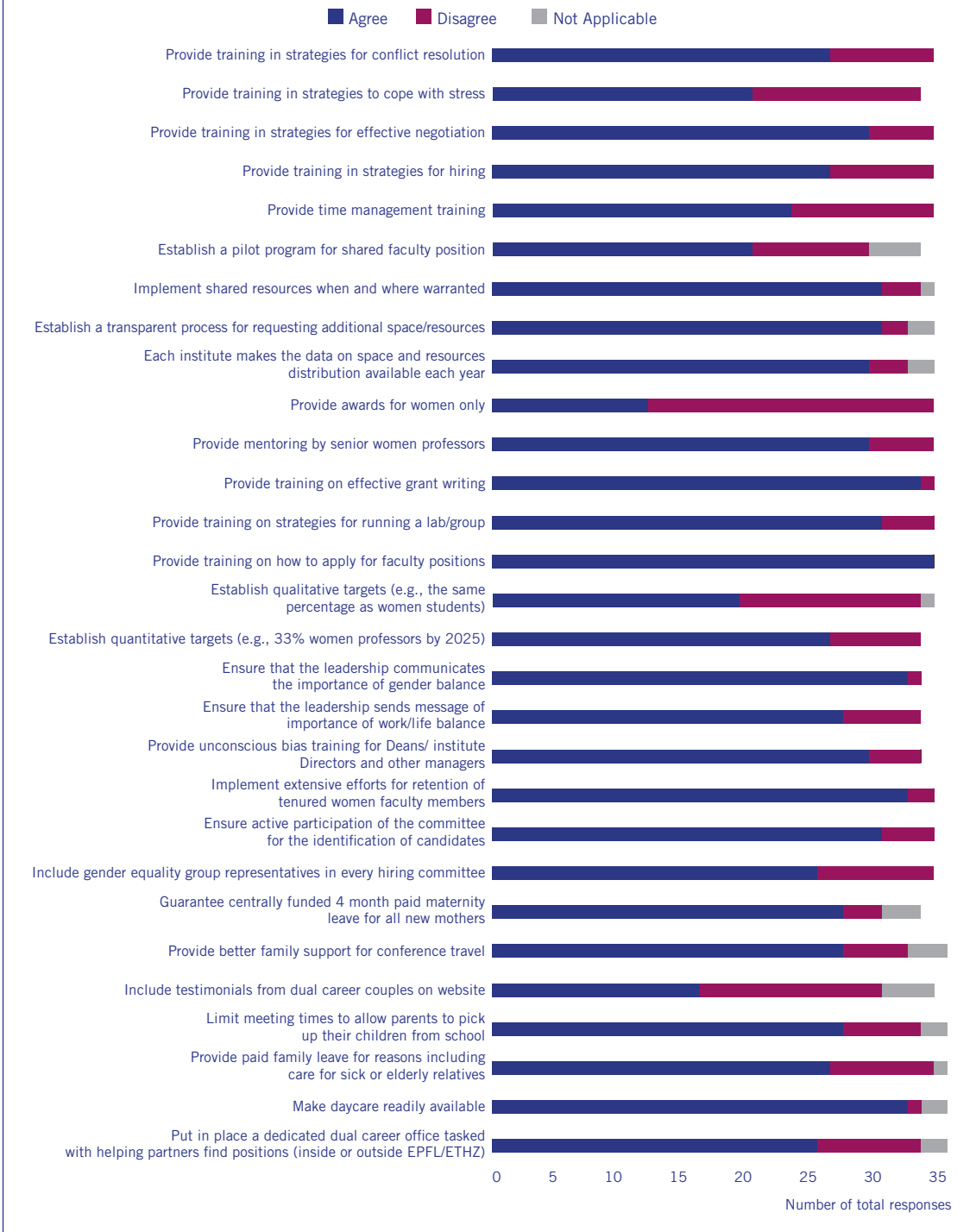
Yes No Agree Disagree Not Applicable



Part 3 – Possible actions.



Part 2 - Possible Actions (ETHZ)



3. COMMENTS

Identifying details in the comments were replaced by XXX to protect the identity of the respondents.

Part 1 - Comments on work-life balance issues

- I believe these should be problems common to men and women
- Lack of emergency day care for sick children (although this has improved since I needed that)
- Lack of spousal placements
- Lack of help from colleagues in covering lectures during maternity or emergencies
- My children are grown up and my parents live abroad
- I do take the time to care for my mother when I need
- Scheduling of department meetings in late afternoon/evening hours which conflict with family care obligations; absence of programs or communication of availability of programs to assist with the substantial cost of childcare if I travel for professional meetings
- I think these should be common problems to men and women
- Works well only if both help equally with household and valorize each other career to reach an optimum. Had no possibility of dual career program when I joined XX years ago and had to accept post-doc position for a long time before becoming prof.
- I had competing offers from several top schools in USA when interviewed for XXX. Both me and my husband were shocked how little is done at XXX to accommodate spouses (virtually NOTHING). This was totally different in the other universities I got offers from
- Lack of options for part-time employment as faculty
- Although my partner didn't give up his career for mine, we had to make many sacrifices and it was not clear whether he would be able to
- My partner is a XX and very flexible and supporting to accommodate my insane workload and pressure. I am lucky
- I do dislike these questions, as they apply also to male faculty
- I am fortunate to have one great colleague in my department who I consider my informal mentor.
- No mentoring in my case, since I was in a parallel track, but support from several male/female prof.
- Within my institute we have a mentor system, however, I feel like lots of colleagues are open to provide guidance and support, you just need to ask them
- Because there are so many more male than female professors, it is important that male professors realize the importance of their role as mentors to females
- Lack of mentorship is not the problem. Frustration rather stems from the narrow mentality that exists
- Things are getting better over the past years indeed, we should continue
- Work/life issues should be gender neutral (apart from maternity leave)
- Support call for professorships only addressing women
- Chair can be actively supportive, but does not help if other dept. members are not receptive

Part 2 - Comments on hiring process bias

- Proactive identification and recruiting of women candidates needed
- Committees should be obliged to interview at least 2 valid female candidates. If there are not enough applicants, the chair needs to 'beat the bushes'

- There are not enough women applicants because they are not encouraged and groomed to apply the way the men are.
- Unconscious bias is main problem (e.g., see name on CV study). Women's independence often questioned; men are hired for vision, women have to prove themselves over and over again. Too much emphasize on appearance or how the candidate presents his file and himself, which counter-selects women that might be less self-confident or outgoing and shy. Does not reflect scientific skills.
- Women quota in search committees is often filled by externals & assistant professors. While this may reduce the work load on internal women, it certainly does not help in the dynamics of the committee
- All criteria are by definition subjective, so their number is irrelevant
- Metrics for selection criteria favor male applicants
- Much subtler than just numbers or "cliques- old boys clubs"
- Women apply differently, which should be taken more into account
- If the only criterion is "absolute excellence", there is almost always a higher-ranked man than a woman, simply because there are so many more male applicants, and so few women in general.
- My institution should hire based on both track record but especially potential for outstanding work and leadership in the future trajectory at XXX. As job candidates, when women who have balanced family responsibilities (statistically WAY more likely to be in a dual career situation) are compared to peers who are largely men with a partner dedicated full time to family, the output during early career years will be different for women. Women may also take student mentoring more seriously. Therefore, evaluations need to look carefully at independence, innovation, and statements as indicators of potential, and consider childcare demands, and not just add up publication number. Also, for age brackets for XXX hiring, is any allowance made for career breaks (as is done by major funding agencies like ERC?)

Part 2 - Comments on promotion process bias

- c. there are criteria but they are not respected
- There are no objective criteria per se
- Women tend to be less show-off
- The metrics for promotion maybe harder to fulfill for women especially when they have small kids.
- Depends on the type of crowd. Worst is at project meetings with lots of industry partners from traditional fields (aero, auto)
- Lack of trust / confidence that we can lead a successful group due to lack of experience / dominance.
- The lack of women professors makes it by definition a boys club
- Lack of inclusion in social events, conversations. Discounting of women's experience (taking male colleagues side in conflict)
- Inappropriate comments (e.g., "it is anyway easier for women to get an ERC grant", while statistics shows otherwise), less resources, more teaching as women don't dare saying "no"; less skills or self-confidence to negotiate resources/space. Less/No invitation to participate in large consortia such as NCCRs or priority programs for junior female faculty members, while male colleagues are invited (maybe better for female Full Profs). Exclusion of junior female faculty members from hiring committees while male are participating. Discouraging comments from male colleagues
- Lower barrier for expecting female faculty to take care of service and teaching needs. I.e., that older male colleague is too busy with research or external responsibilities, so our female colleague can take care of it. Also comes from the student side, lower barrier for unloading problems that probably should be dealt with administratively
- Not able to voice opinion without being told I will be forever seen as a "pushy" woman or that I

shouldn't get allow myself to get "upset" about an issue

- Unconscious biases not recognized
- A general lack of positive, supportive spirit can be demotivating
- These answers are general to what I observe in academia and do not apply to my institute, in which things work well for female faculty
- The network of male colleagues ensures that those who are connected will learn about opportunities. Lack of transparency about how resources are allocated or what is appropriate to ask for leads to women receiving less
- The status quo might not always reflect this. But the negotiations to get there might have been painful and discouraging. Should be evaluated over time
- Less space because of the unconscious bias in women's application for resources
- The legacy of previous prof is a very important bias and many male colleagues have benefited from such legacy. I know no women who did
- Women may have a more collaborative style which lends to concessions of resources
- More committee works
- Rather more than less committees (we need a woman on the committee...)
- Students demand more support from female prof and seem to be more critical (student eval.)
- Dealing with unconscious bias: women have to work harder to get the same level of respect.
- Unconscious bias is large, starts with phrasing support letters for promotion

Part 3 - Selected comments about active recruitment and retention of women

- Recruitment of women might require a more active efforts (pre-targeting...)
- From experience in committee, active search and broader definition of posts in the searches helps (women would be less inclined to apply if not perfect match to the ad)
- Listen to women in discussions
- The chair of the search should be made aware of unconscious bias and be obliged to present two valid female candidates for interviews
- Professorships for women, extra money if departments hire a woman for a professorship, equality representative is a male professor, keep calls as open as possible with regard to discipline
- Active identification is done, but later plays secondary role
- Education (short online video that must be seen before accessing evaluations?) to provide some training and awareness of biases and some strategies to suppress bias

Part 3 - Selected comments about change culture and attitudes

- More focus on content and less focus on indicators
- Need male profs to be involved as well, to show their involvement in family, which they tend do to more now indeed.
- My feelings about work-life balance are mixed. The expected level of achievement to get tenure is incompatible with work-life balance. Since students and post docs are protected by HR, who seems very concerned that they receive all vacation days and work normal hours, it falls to the PATT to ensure the works still gets done. There cannot be real work-life balance without changing the expected productivity, but this is also part of what makes the EPF/ETH so attractive as a place to work (excellence).

Part 3 - Selected comments about establish specific targets for the number of women faculty at EPFL/ETHZ

- I think that the first problem comes from the low percentage of applications coming from women when a faculty position is opened. So, before targeting a percentage of women professors, it should be important to reach an increased number of applications
- Should be adapted by institutes and indeed mirror the ratio in the pond
- Has to be a realistic target depending on the field
- I think other policies besides a target percentage could be more effective. For example, start with a target percentage for invited speakers. Then, insist on broad descriptions of the applicant field for searches. Finally, in cases where there is a qualified woman who is interviewed but not selected by the committee, an extra position.
- The ideal target is, of course, 50%, but that does not seem realistic, unfortunately
- In sciences it is difficult to get more due to the inherent bias in the pool for selection
- I don't necessarily think there should be a formal target, rather always pushing for equity, so when we get to 50 we will be there. I think this is a problem of society in general and expectations placed
- I do think that the quality of the applicants is still decisive
- I think that appealing to people's wish for more positions by offering an extra position if a qualified female interviews is more likely to lead to acceptance than essentially insisting females be hired. In the end it could achieve the same outcome, although the exact hiring plan would be rearranged in time (a position that would normally open later would be filled concurrently)
- The time scale for attaining a target may need to be less aggressive? Look at what has worked successfully in other universities which have set targets for recruitment and retention

Part 3 - Selected comments about mentoring and training programs

- Some of the trainings above would be good for male and female postdocs
- These first ones may not only be reserved to female, actually, but would benefit all
- These measures should be general and not only for women
- Unconscious bias also occurs in senior women professors. We all know how to write grants or run a lab. But if accomplishments are not visible or less rated this does not help.
- The above trainings sound all great, I am just not sure why they should be provided only to women
- Both men and women should be trained in conflict management and gender awareness
- I think any training should be for both genders, therefore I ticked disagree
- These courses already exist and I do not see why they should be different for female and male profs. On the contrary, these courses should be shared to compare and benefit from interactions.
- These are all great trainings but do not see need to provide for only women
- Training in dealing with dominant male students
- Give individual support where needed quickly, easily, individually because needs may be very diverse

Part 3 - Selected comments about create and advertise a family friendly environment

- Dual career offices can only work with support and engagement from academic leadership. Negotiations with other institutions can only be conducted among peers at leadership levels.
- For dual career it should also be possible to find money to open up new positions
- All the above are issues that both female and male faculty face

- Daycare should also be considered for male colleagues and not put on female only
- I would like to see XXX spring break be in the XXX school holidays. That would be much easier for both men and women with school aged children
- Generally, not so much a question of money than a question of career path limitation due to unproductive times. Forced paternity leave could help
- Provide opportunity for (temporary) part-time employment
- 4 months are already paid (question g), thus I do not understand the question
- Foster habit to schedule meetings so that parents can leave to pick up children from school
- Make sure the environment is supportive BY THE TIME any hiring targets are aggressively approached -otherwise we hire women but may not retain them or may not be attractive to have them come

