## Why do we need a mentoring program for women?

Women face very specific problems in their studies, both when working towards academic qualifications and later as professors. Often they and others see these difficulties as being down to personal failings, even though they are really a part of being a woman in science. We look at this situation below.

## Looking at the statistics

In the 2020/21 winter semester the ratio of women students at the University of Tübingen was $58.8 \%$ and the ratio of women gaining degrees (excluding Bachelor and teacher training) in the 2019/20 academic year was $60 \%$, however at each step up the academic ladder the ratio of women declines. For instance, the ratio of women taking doctorates was 54.1\% (2019/20 academic year) and those moving on to qualify to be a professor was only $32.7 \%$ (2016-2020), resulting in a share of women holding professorships of only $24.5 \%$ (01.12.2020).

So in order to attract the best brains to science it is important to increase the number of women who are drawn to an academic career.

While it should also be noted that less than $20 \%$ of doctoral students remain in the academic system in the long term, it is still an advantage to have a doctorate, even outside academia. The German Ministry of Education and Research's 2021 Report on the Promotion of Young Researchers (BuWIN) shows that on average those who have a PhD earn a higher income than those without, they also take up leadership positions more often than graduates without a PhD, and pursue professional activities that match the profile of their qualification more often than graduates without a PhD. However, women benefit from these advantages of a PhD less often than men, which indicates how much remains to be done for gender equality outside the academic system.

Ratios of women and men at the University of Tübingen in the different stages of an academic career, 2020


## Reasons for the under-representation of women in science

The fact that women are under-represented as professors, doctoral students or even Masters' students is down to individual decisions by women. Yet the causes of these decisions lie in a whole range of discriminatory factors.

Development of new talent at German universities is a largely informal process and very much depends on individuals. In places where there are a large number of men among the decisionmakers, what is technically known as 'homosocial cooptation' occurs. This is where members of a social network tend to recruit new members who resemble themselves, as a result of which mentoring relationships are largely same-sex. This increases men's chances of advancement, while women receive less support.

The same applies to being included in informal networks which can be crucial to a scientific career and determine academics' renown in the scientific community. Studies show that even female professors in many ways feel they experience exclusion or that they are integrated in fewer and less important networks.

The most important structural disadvantage for women is often said to be that they have less time for academic work during their scientific career because of taking on caring duties. Caring is in fact still very unequally shared. This additional pressure hits women's careers after their PhD particularly hard. This is the phase in which the groundwork is laid not only for career success but also to establish a family. Time and again, this dual pressure causes excellent women to seek a path outside academia.

It is often said that the high demands of caring would also apply to men who are committed to their families too. This overlooks the fact that it is generally women who bear the greatest burden even in families where men do undertake some of the care work. And studies show that the situation has got worse during the pandemic.

However, even more fundamental to the disadvantage faced by women than their disproportional burden of caring is 'gender bias'. Gender bias is the term for the systematic distortions that arise from social gender stereotypes, internalized role models and gender-specific prejudices, and that unconsciously influence perception, leading to decisions that disadvantage women. Studies show that CVs, research proposals and scientific publications are rated differently depending on whether they are submitted with a male or female name. Both men and women rate the work of men more highly than that of women. On top of this is the fact that when there are co-authorships, success is more often ascribed to the male author than the female, and the same behavior is viewed positively in a man and negatively in a woman.

Therefore there are in our society gender-specific differences when evaluating the academic work of women and men. We all tend to evaluate the work of women more critically than that of men, or to put it another way: we regard what men do as brilliant, even if it is similar or even the same as what women are doing.

This means that whether studying or working in science, women are in a completely different situation to men. They constantly have to prove themselves and their work in the context of such discrimination. A mentoring program for women will help with recognizing these discriminatory
factors and developing methods of successfully circumventing them, as well as calling them out for what they are in the university environment.

