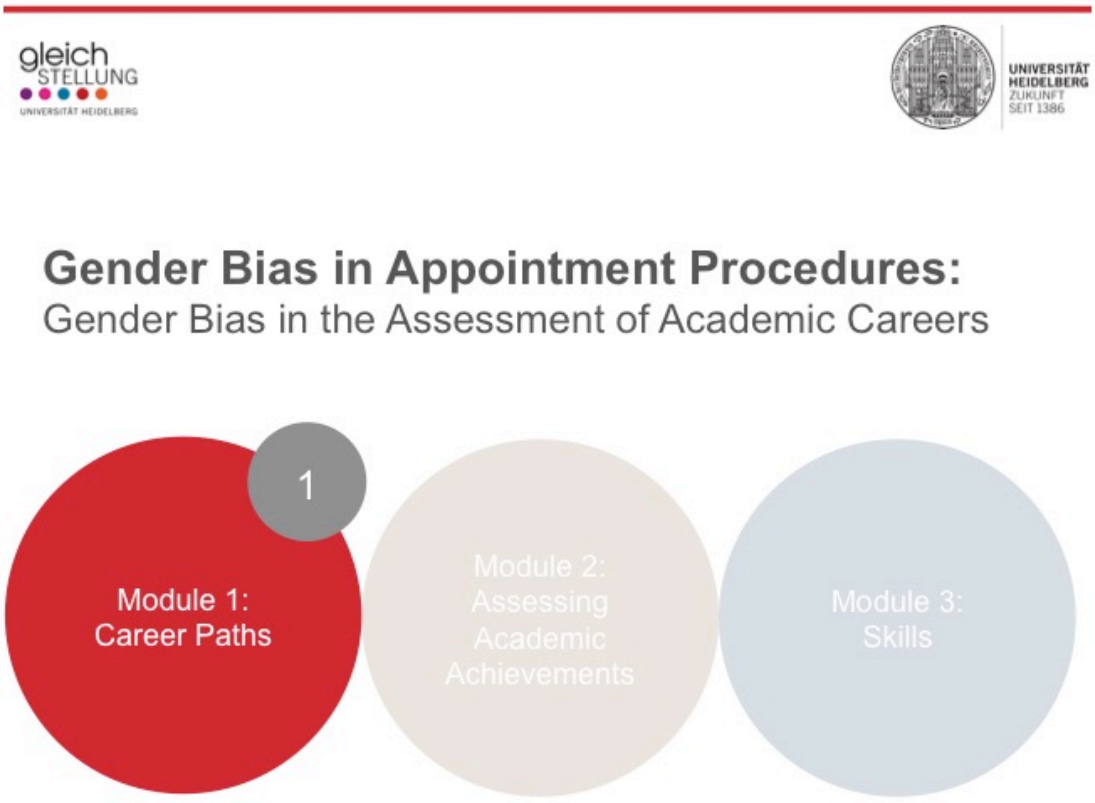
Slide 1



Welcome to the online tutorial “Gender Bias in Appointment Procedures”. In the following three modules we will take a closer look at gender bias that may occur in the assessment of an academic career. Module 1 focuses on individual career paths.

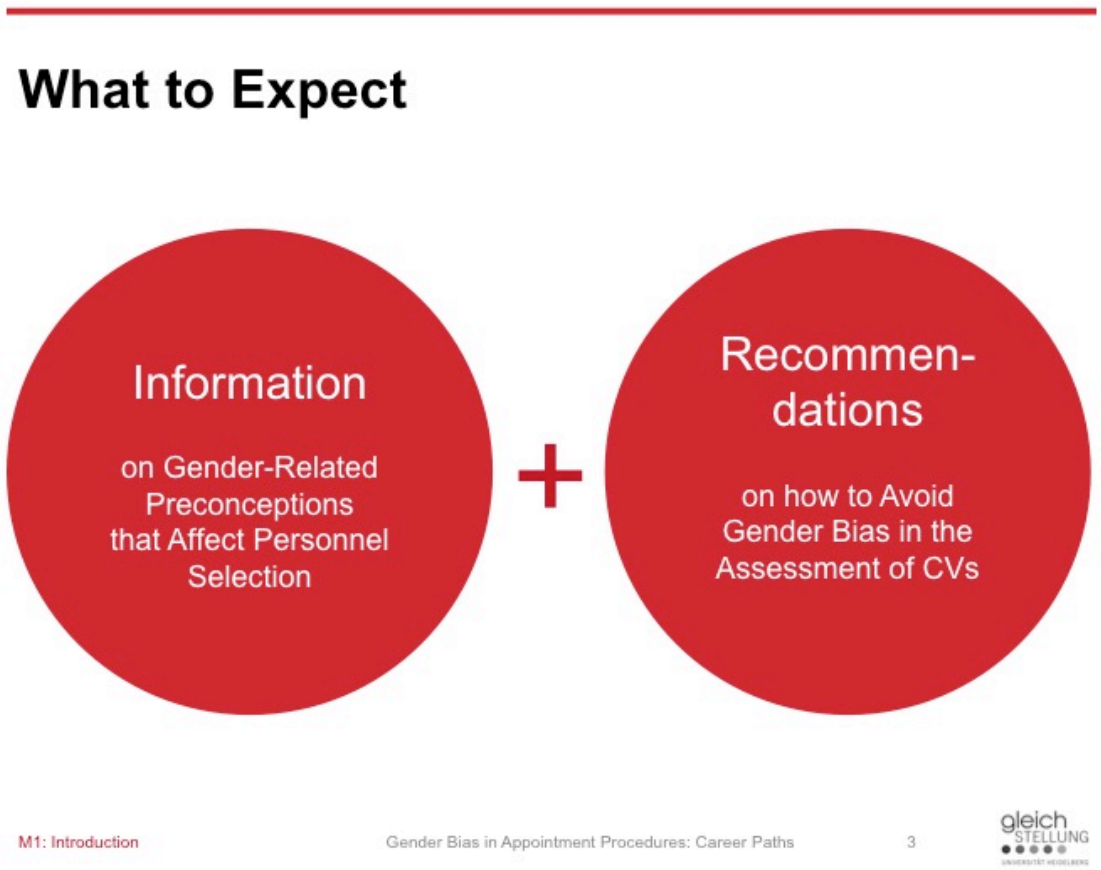
Slide 2

Gender Bias in Appointment Procedures

① Introduction
② Individual Life Circumstances/Career Paths
③ Impact of Gender Bias on the Assessment of
- Mobility
- Publications
- Qualification Times and Pathways
- Research Topics

④ Effects in Individual Stages of the Appointment Procedure
⑤ Recommendations

Slide 3



Module 1 provides information about intuitive mental preconceptions related to the gender of an applicant, which may influence the selection of personnel in appointment procedures. These include stereotypical assumptions about how women and men work together in academic settings or about how academic careers are built. Gender bias, which goes hand in hand with such preconceptions, happens intuitively. Based on research done in this field, however, a series of recommendations can be offered with which you as a member of an appointment commission may counteract potential gender bias.

Slide 4

Assessment of Career Paths Prone to Gender Bias

- Reasons:
  Ideal Career Path Mindset
  Preference for Traditional Academic Careers

- Goal:
  Recognising Individual Factors in Applications

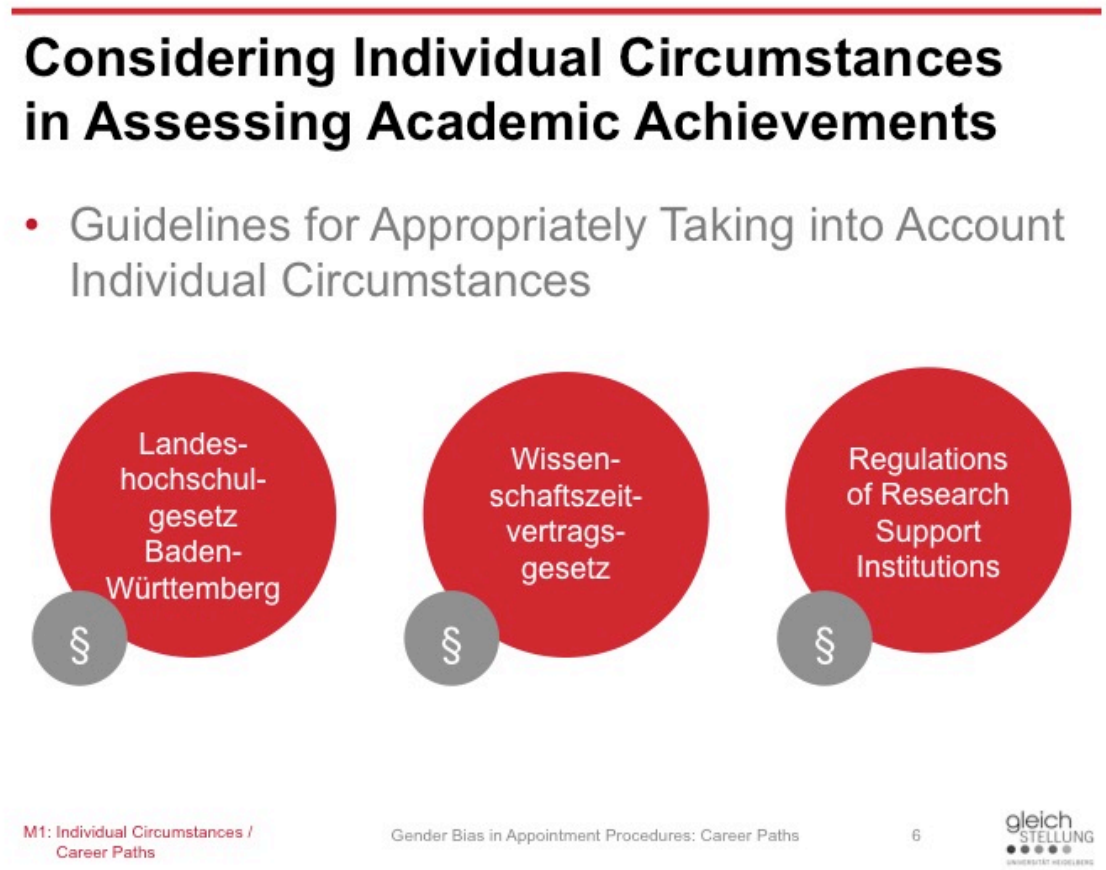
During appointment procedures, the assessment of career paths is prone to gender bias. In selecting candidates, assumptions about the ideal academic career path often have an influence on the assessment. Typically, it is men whose careers follow the ideal path more closely. Choosing the best candidate for the job, however, requires an assessment that is free of prejudice. If individual factors of an application are not taken into consideration, this may lead to a biased assessment.

Slide 5

Individual factors may lead to delays in academic career developments. These include:

- Pregnancy and childbirth
- Childcare and family responsibilities
- Looking after family members in need of care
- Disability or chronic illness
- Long periods of severe illness
- Times of military or civilian service
- Focusing on partner's career
- Changing jobs to/from an academic position.

Slide 6

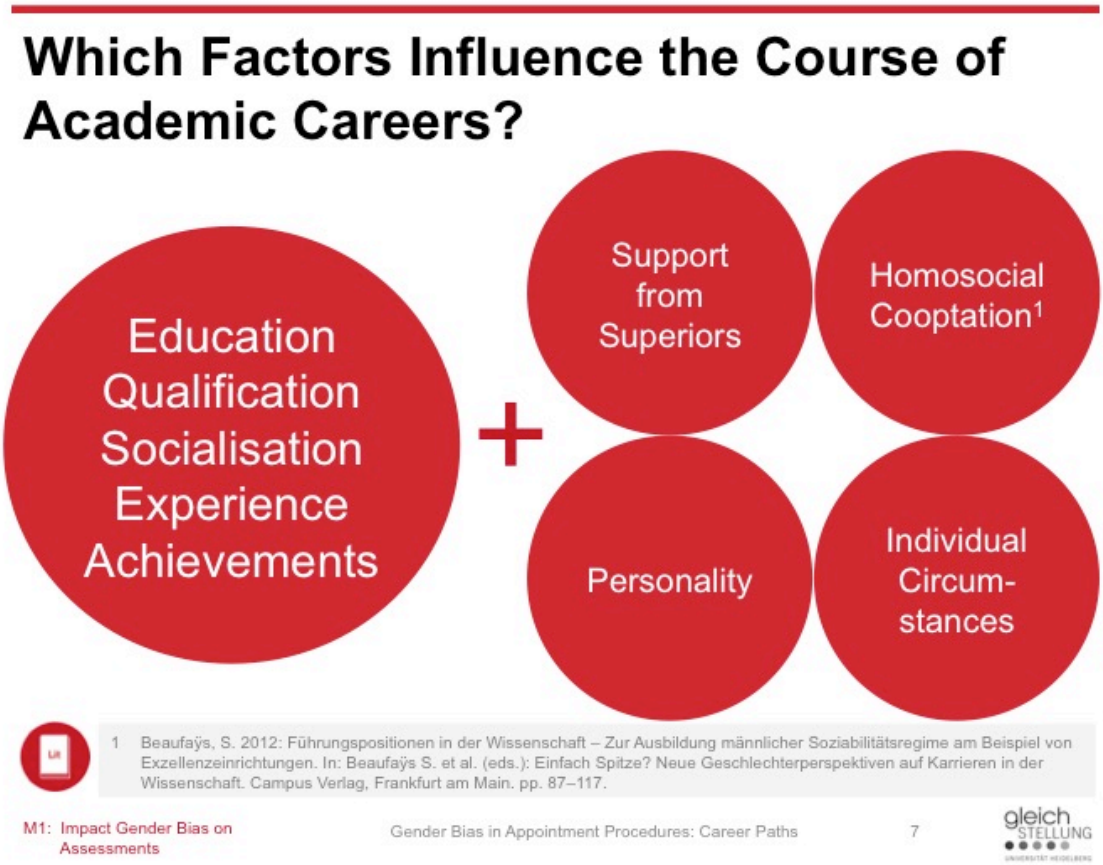


Since these individual circumstances of life have a decisive impact on career development, they must be considered when assessing academic achievements. Guidelines or good practice models for an appropriate consideration of these circumstances can be found here:

- The Landeshochschulgesetz Baden-Württemberg (State University Law of Baden-Württemberg)
- The Wissenschaftszeitvertragsgesetz (German law on fixed term employment in academic contexts) and
- The regulations guiding research support institutions.

We will return to this point in module 3.

Slide 7



Which factors influence the course of academic careers?

Education and academic qualification, professional socialisation and employment history, practical experience and academic achievements – these are the essential keywords for describing an academic career path. A curriculum vita exhibiting smooth transitions from one stage to the next with no gaps in between is thereby regarded as evidence of success. Career development is also influenced by factors such as support from university peers and superiors as well as what is known as “homosocial cooptation”. This term describes academic culture as above all a "social form, in which men promote themselves as ideal companions and recognise each other as such". Similarly, factors relating to an applicant's personality such as the ability to adapt and show initiative have an impact as well. Academic career paths in particular are significantly influenced by individual circumstances of life. It is first and foremost these unavoidable delays that lead to non-standard career paths. For some, this means longer qualification times with comparatively fewer publications (often perceived as “publication gaps” or “performance deficits”). For others, it means less ability to relocate and travel abroad and thereby less opportunity to build the relationships and networks that their peers applying for the same jobs are able to leverage.

Beaufaÿs, S. 2012: Führungspositionen in der Wissenschaft – Zur Ausbildung männlicher Soziabilitätsregime am Beispiel von Exzellenzeinrichtungen. In: Beaufaÿs S. et al. (eds.): Einfach Spitze? Neue Geschlechterperspektiven auf Karrieren in der Wissenschaft. Campus Verlag, Frankfurt am Main. pp. 87–117.

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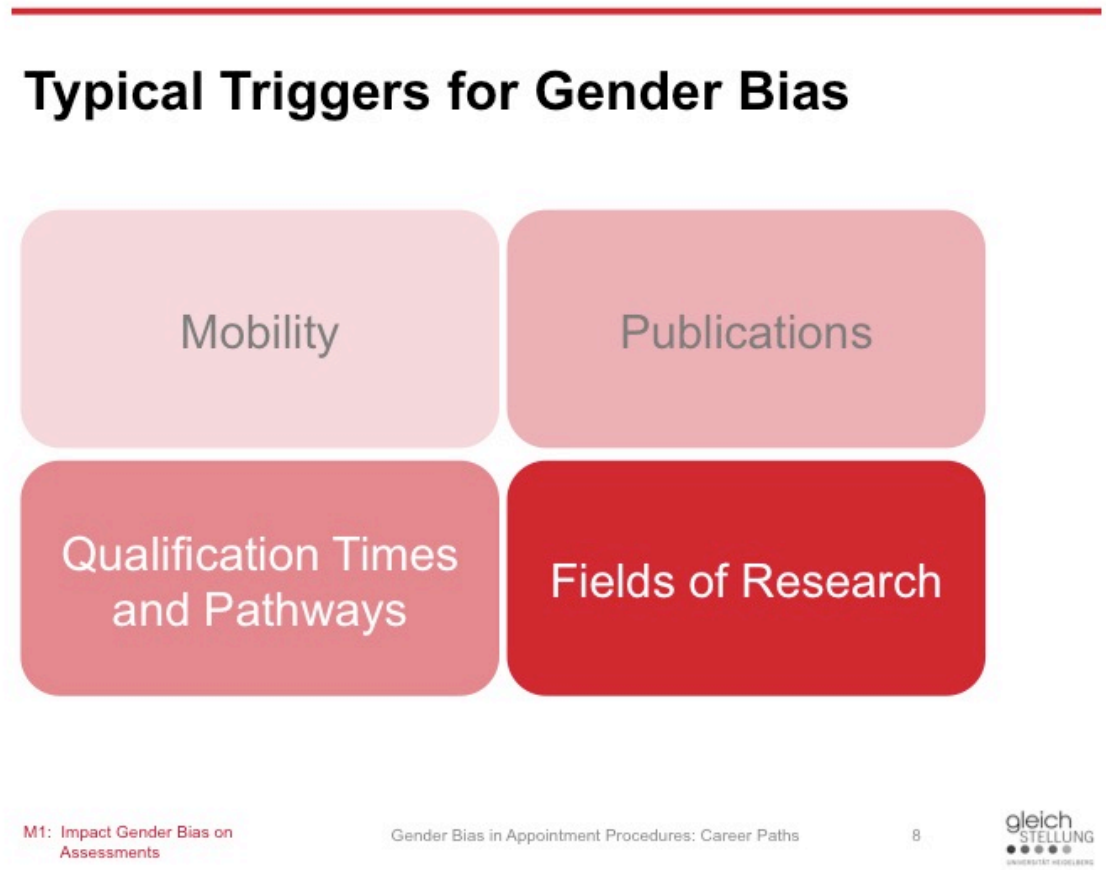

However, the reasons for such “unavoidable delays” are not evaluated from a gender-neutral perspective. How they may, in form of gender bias, influence the assessment of academic career paths will be demonstrated in the following. We will focus on four aspects that are regarded as typical areas of assessment: Mobility – publications – qualification times and qualification pathways – and fields of research.

Slide 9

Female Researchers Develop Alternative Mobility Strategies

- Alternative Strategies:
  Commuting, Second Residence at Job Location

However:

No High-Ranking Position without willingness to Move

1 Becker, R. & Tippel, C. 2012: Akademische Nomadinnen? Zum Umgang mit Mobilitätserfordernissen in akademischen Karrieren von Frauen. In: Beaufaÿs, S. et al. (eds.): Einfach Spitze? Neue Geschlechterperspektiven auf Karrieren in der Wissenschaft. Campus Verlag, Frankfurt am Main. pp. 204–230.
2 Ackers, L. 2005: Moving People and Knowledge. Scientific Mobility in the European Union. In: International Migration. Vol. 43 (5). pp 99–131.

The first aspect concerns the willingness to demonstrate and live mobility, a decision that depends on very different conditions for women and for men. Female researchers, for instance, anticipate these high mobility demands and develop alternative strategies in order to reconcile their career with their private life. Commuting or establishing a secondary residence at the job location are some example alternative strategies.

In a 2005 study, Louise Ackers demonstrates that new forms of mobility such as business visits, short stays or intensifying communication can substitute for longer stays abroad. They are increasingly accepted as signs of internationality and cooperation. Still, it is near impossible to obtain a high-ranking position in research if you are not prepared to move.

1 Becker, R. & Tippel, C. 2012: Akademische Nomadinnen? Zum Umgang mit Mobilitätserfordernissen in akademischen Karrieren von Frauen. In: Beaufaÿs, S. et al. (eds.): Einfach Spitze? Neue Geschlechterperspektiven auf Karrieren in der Wissenschaft. Campus Verlag, Frankfurt am Main. pp. 204–230.
2 Ackers, L. 2005: Moving People and Knowledge. Scientific Mobility in the European Union. In: International Migration. Vol. 43 (5). pp. 99–131.

Slide 10

Mobility is an integral part of career pathways, too. A study at Swiss universities, for instance, has shown that compared to their male colleagues, female researchers spend less time abroad in Anglo-American settings.

Women's involvement in the family sphere, their comparatively smaller international networks as well as less mentoring by experienced researchers can be cited as reasons for this discrepancy.

Leemann, R. J. & Boes, S. 2012: Institutionalisierung von „Mobilität" und „Internationalität" in wissenschaftlichen Laufbahnen. Neue Barrieren für Frauen auf dem Weg an die Spitze? In: Beaufaÿs, S. et al. (eds.): Einfach Spitze? Neue Geschlechter-perspektiven auf Karrieren in der Wissenschaft. Campus Verlag, Frankfurt am Main. pp. 174–203.

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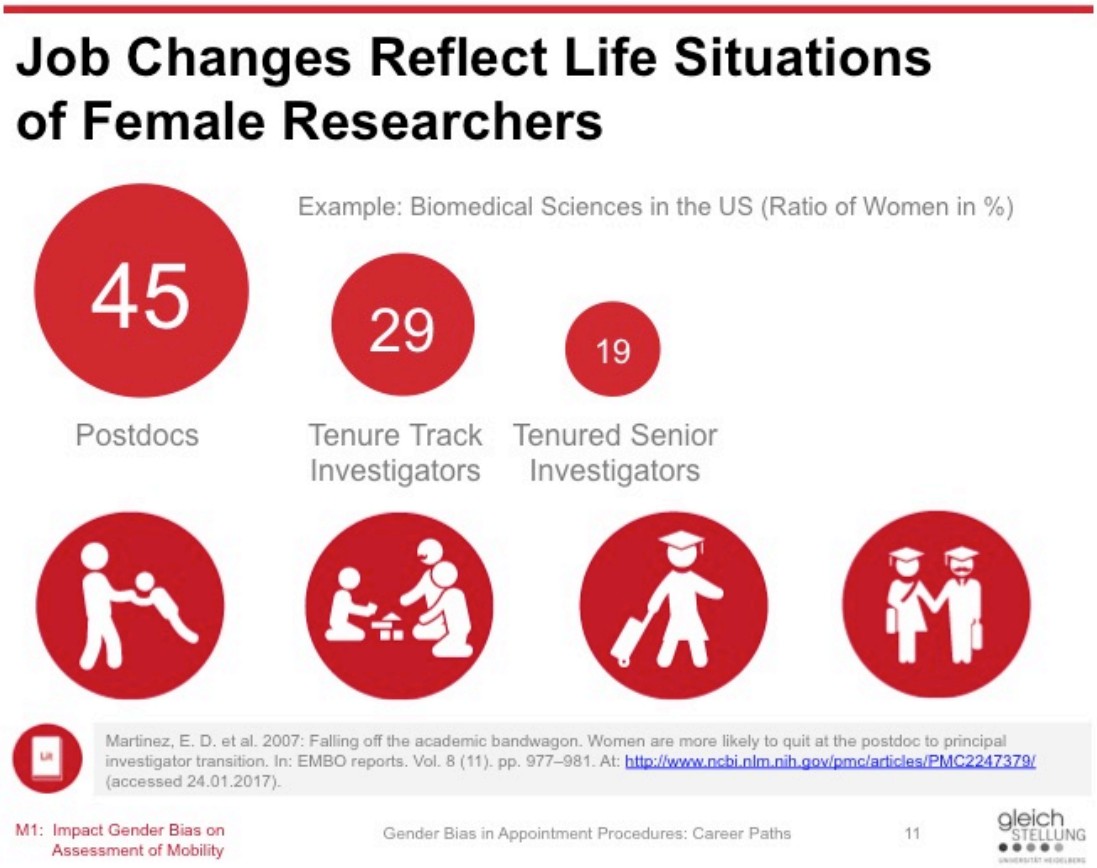

Another facet of mobility concerns job changes or the amount of time spent in one employment. At universities and research institutions in the USA, for example, women make up 45 % of postdocs in the biomedical sciences. However, as numbers from the US National Institutes of Health Intramural Research Program exemplify, only 29 % of tenure track positions and only 19 % of tenured senior investigator appointments are held by female researchers.

A study identifies several reasons for this disparity: Asked to rate various factors that could influence their decision to pursue a career as principal investigator, women and men responded differently in several areas. The following aspects are among those that women rated differently compared to their male colleagues:

- The availability of childcare offers,
- The possibility to spend time with children and family members,
- Travel requirements connected to the position and
- Dual-career factors.

Martinez, E. D. et al. 2007: Falling off the academic bandwagon. Women are more likely to quit at the postdoc to principal investigator transition. In: EMBO reports. Vol. 8 (11). pp. 977–981. At: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2247379/ (accessed 24.01.2017).

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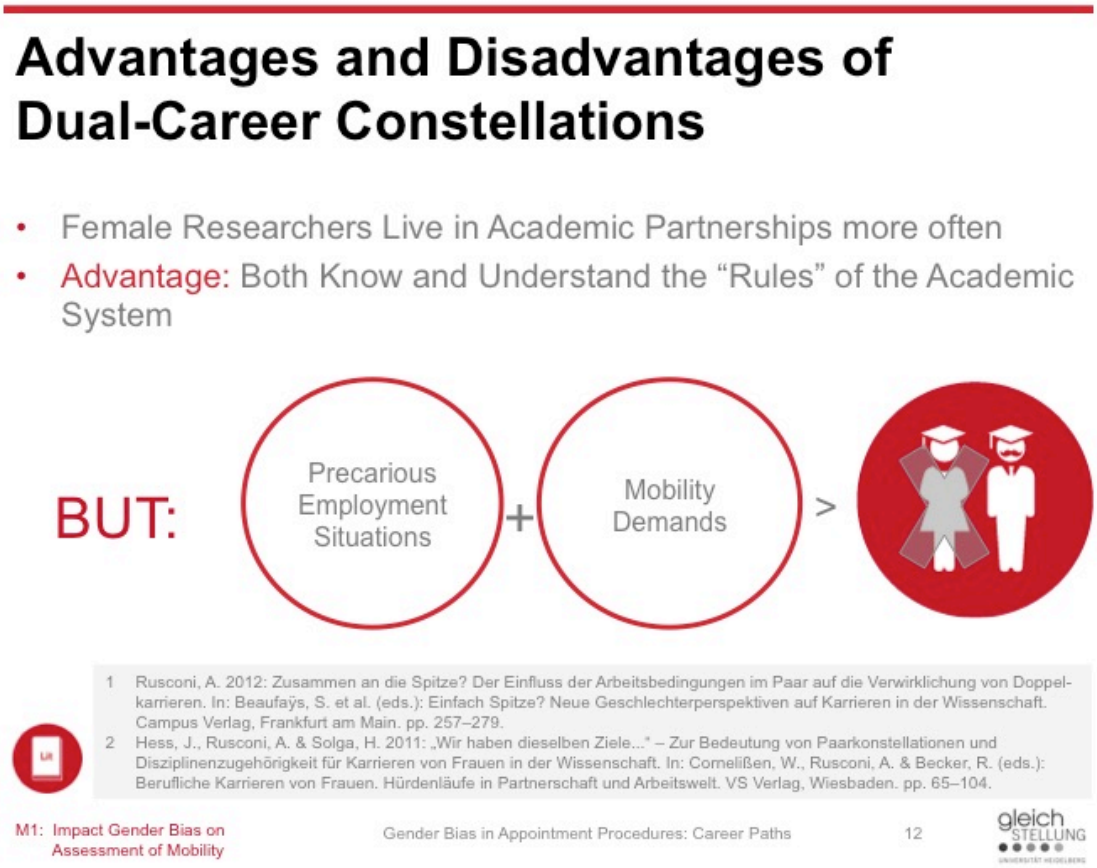

Studies on dual-career constellations show that women who are pursuing an academic career more frequently live in academic partnerships. That in these partnerships there is a reciprocal understanding or knowledge of the "rules" of the academic system is certainly an advantage. On the other hand, precarious employment situations and mobility demands oftentimes require one or both of them to leave their academic position. In most cases, it is the woman.

1 Rusconi, A. 2012: Zusammen an die Spitze? Der Einfluss der Arbeitsbedingungen im Paar auf die Verwirklichung von Doppel-karrieren. In: Beaufaÿs, S. et al. (eds.): Einfach Spitze? Neue Geschlechterperspektiven auf Karrieren in der Wissenschaft. Campus Verlag, Frankfurt am Main. pp. 257–279.

2 Hess, J., Rusconi, A. & Solga, H. 2011: „Wir haben dieselben Ziele..." – Zur Bedeutung von Paarkonstellationen und Disziplinenzugehörigkeit für Karrieren von Frauen in der Wissenschaft. In: Cornelißen, W., Rusconi, A. & Becker, R. (eds.): Berufliche Karrieren von Frauen. Hürdenläufe in Partnerschaft und Arbeitswelt. VS Verlag, Wiesbaden. pp. 65–104.

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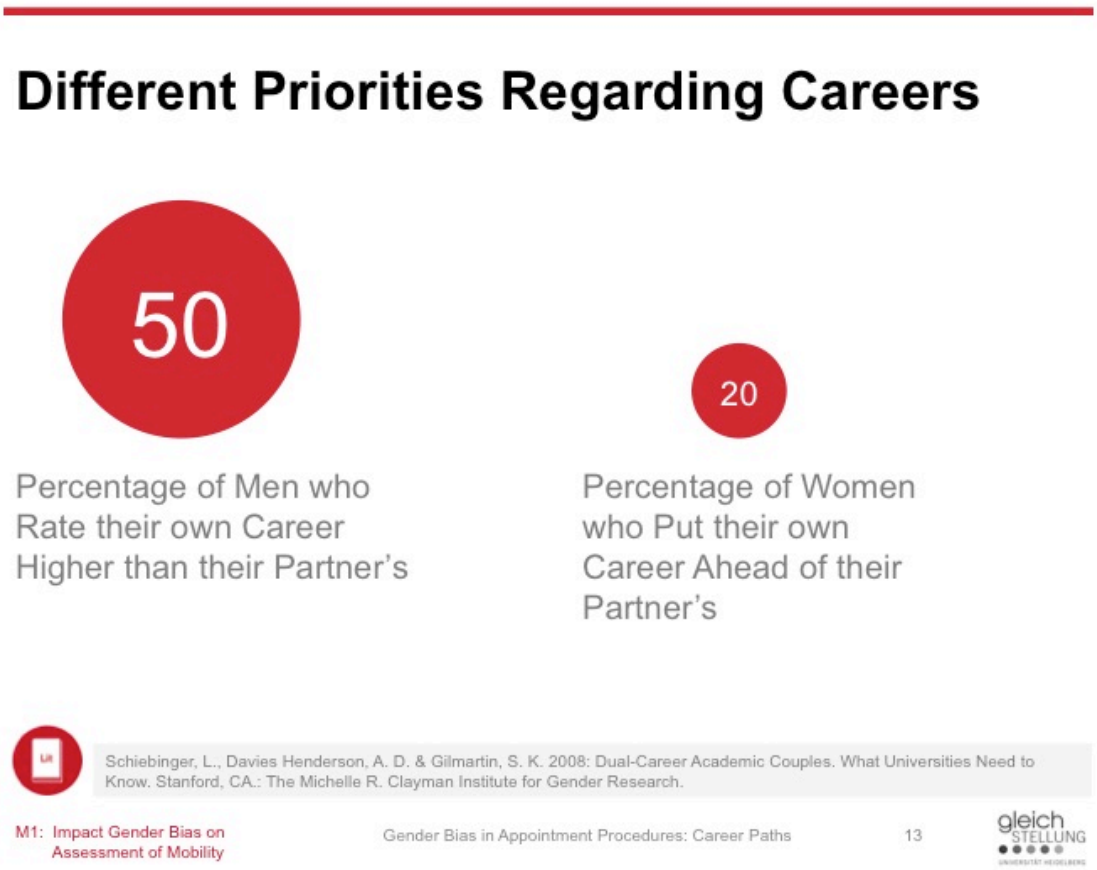

Additionally, a study conducted by Stanford University concludes that 50 % of men in the US who live in academic partnerships rate their own career higher than their partner's. Only 20 % of female researchers put their own career ahead of their partner's.

Schiebinger, L., Davies Henderson, A. D. & Gilmartin, S. K. 2008: Dual-career academic couples. What universities need to know. Stanford, CA.: The Michelle R. Clayman Institute for Gender Research.

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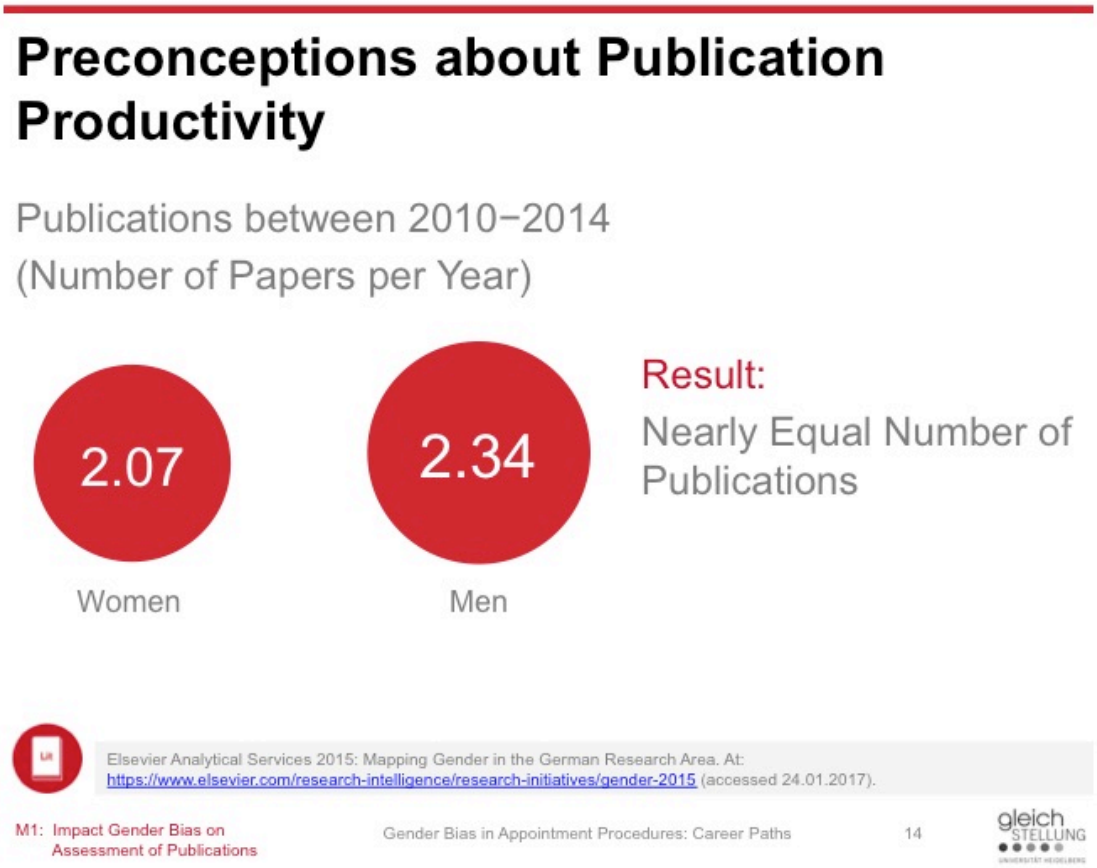

When looking at publications – another important aspect of academic performance – the existence of gender-related bias oftentimes places women at a disadvantage.

In order to comprehend these preconceptions it is necessary to not only consider the component of performance – in the sense of work accomplished in a specific amount of time – but to also take into account the different approaches that women and men take to publishing.

A study conducted by Elsevier shows that between 2010 and 2014 female researchers in Germany published on average 2.07 papers per year, whereas their male colleagues had 2.34 publications to their name. The common prejudice that women publish significantly less than men is thus not supported by these numbers. Publications authored by women are, however, cited less frequently. When factoring in academic subjects, differences become apparent, too: In engineering, computer science, physics and astronomy, women are even more productive than their male colleagues.

Elsevier Analytical Services 2015: Mapping Gender in the German Research Area. At: https://www.elsevier.com/research-intelligence/research-initiatives/gender-2015 (accessed 24.01.2017).

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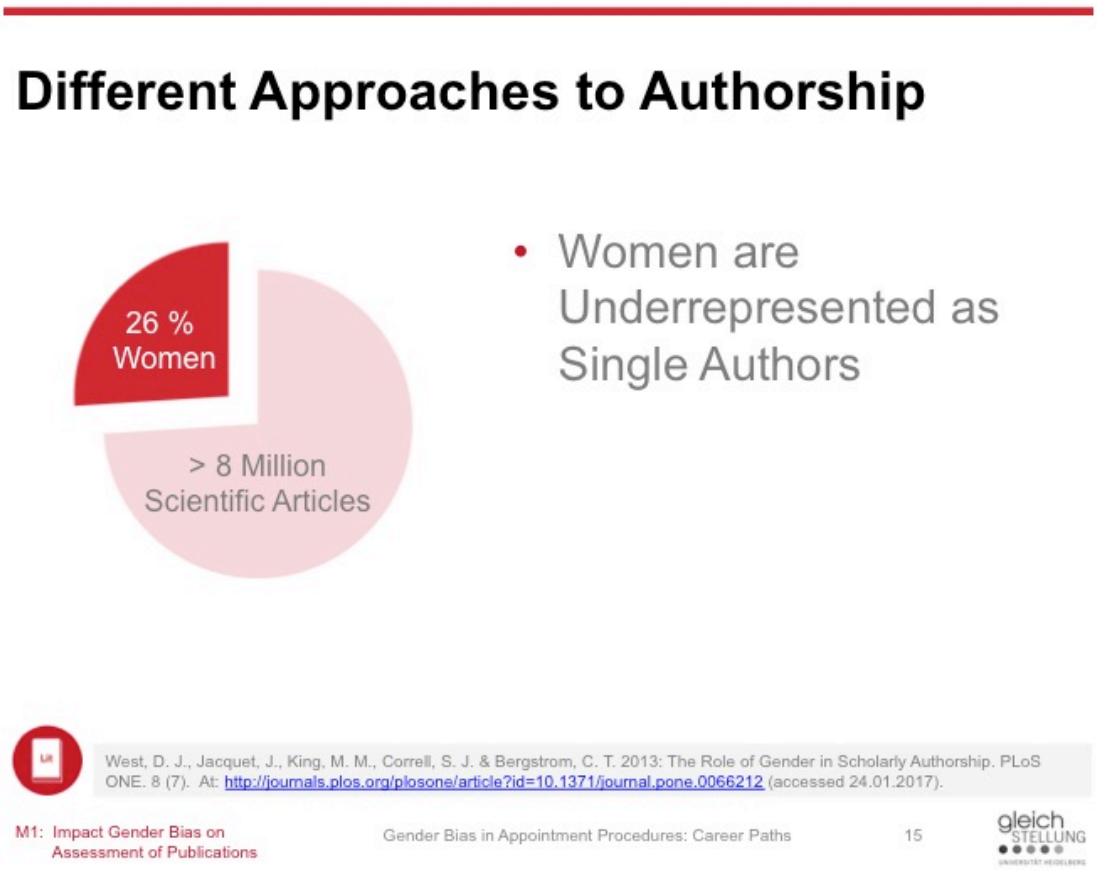

With regards to authorship, however, significant differences can be detected between women and men.

An analysis of the politics of authorship in over 8 million scientific articles in the natural and social sciences as well as the humanities included in the Journal STORage database reveals that in a range of disciplines the prestigious first and last author position in articles is often held by male researchers. As single authors of scientific articles, women are significantly underrepresented: Since 1990, they have only made up about 26 %.

West, D. J., Jacquet, J., King, M. M., Correll, S. J. & Bergstrom, C. T. 2013: The Role of Gender in Scholarly Authorship. PLoS ONE. 8 (7). At: http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0066212 (accessed 24.01.2017).

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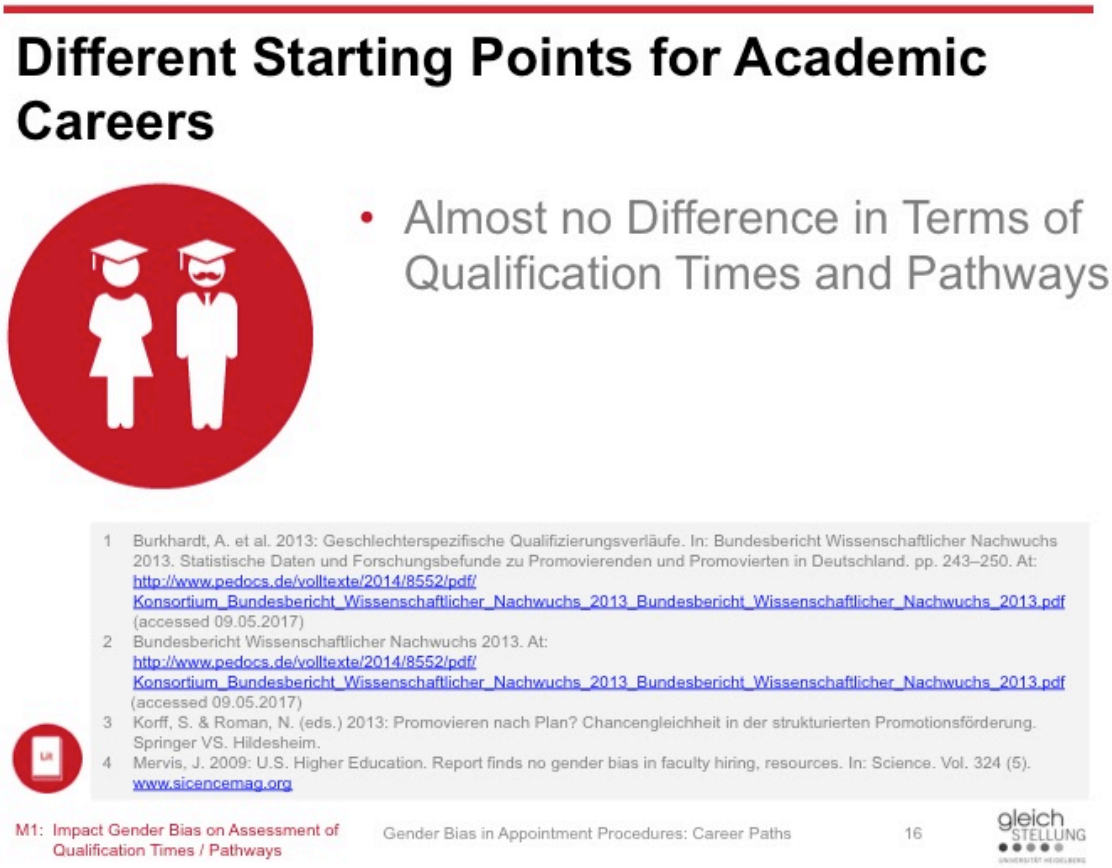

Another area in which the effects of gender bias become visible is in the assessment of qualification times and paths. Several studies have shown that the starting points for women and men embarking on an academic career are quite different. Here, too, it is generally assumed that it takes women longer to obtain their qualification, and that when they do, it is supposedly via complicated qualification pathways. In their study, Korff et al. show that in comparison to men, women, indeed, take longer to obtain a doctorate. The numbers look different, however, when women complete their doctoral studies in structured PhD programmes. In transitioning from the postdoctoral stage to professorship, women and men fare equally well, too. It is true that a lot of women leave the academic sector, especially after the doctoral phase; when they are part of the academic system, however, they perform just as well as their male colleagues with regard to academic achievements and qualification times.

1 Burkhardt, A. et al. 2013: Geschlechterspezifische Qualifizierungsverläufe. In: Bundesbericht Wissenschaftlicher Nachwuchs 2013. Statistische Daten und Forschungsbefunde zu Promovierenden und Promovierten in Deutschland. pp. 243–250 At: http://www.pedocs.de/volltexte/2014/8552/pdf/Konsortium_Bundesbericht_Wissenschaftlicher_Nachwuchs_2013_Bundesbericht_Wissenschaftlicher_Nachwuchs_2013.pdf (accessed 09.05.2017)
2 Bundesbericht Wissenschaftlicher Nachwuchs 2013. At: http://www.pedocs.de/volltexte/2014/8552/pdf/Konsortium_Bundesbericht_Wissenschaftlicher_Nachwuchs_2013_Bundesbericht_Wissenschaftlicher_Nachwuchs_2013.pdf (accessed 09.05.2017)
3 Korff, S. & Roman, N. (eds.) 2013: Promovieren nach Plan? Chancengleichheit in der strukturierten Promotionsförderung. Springer VS. Hildesheim.
4 Mervis, J. 2009: U.S. Higher Education. Report finds no gender bias in faculty hiring, resources. In: Science. Vol. 324 (5). At: http://www.sicencemag.org

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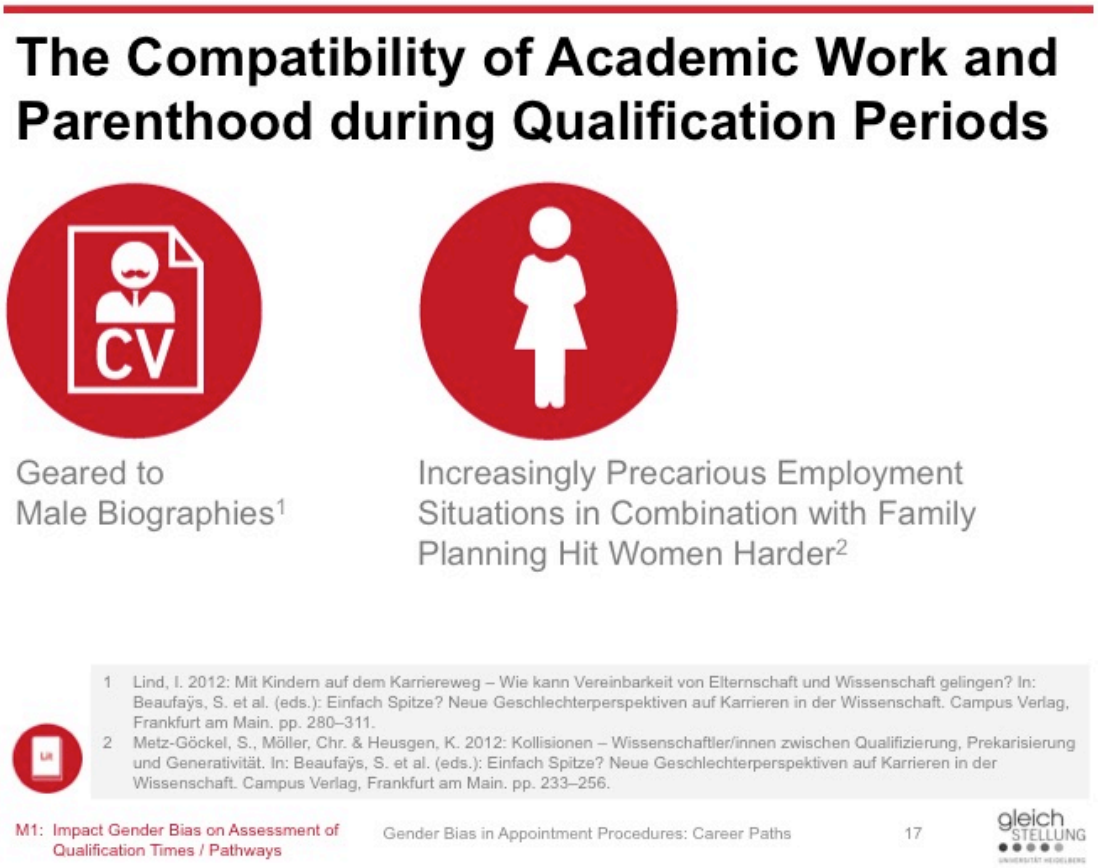

Qualification times – and along with that qualification pathways – are particularly prone to “unavoidable delays”, with which women and men are confronted to varying degrees. To illustrate, here are the results of a survey conducted among academic personnel at German universities:

Asked about the compatibility of work and parenthood, the participants’ responses revealed two things: Firstly, the demands of an academic career are still geared to traditionally male biographies – particularly when it comes to time commitment and mobility.

Secondly, it is more difficult for women than men to reconcile an academic career with family planning in Germany. The precarious employment situation at universities only amplifies the problem further.

1 Lind, I. 2012: Mit Kindern auf dem Karriereweg – Wie kann Vereinbarkeit von Elternschaft und Wissenschaft gelingen? In: Beaufaÿs, S. et al. (eds.): Einfach Spitze? Neue Geschlechterperspektiven auf Karrieren in der Wissenschaft. Campus Verlag, Frankfurt am Main. pp. 280–311.
2 Metz-Göckel, S., Möller, Chr. & Heusgen, K. 2012: Kollisionen – Wissenschaftler/innen zwischen Qualifizierung, Prekarisierung und Generativität. In: Beaufaÿs, S. et al. (eds.): Einfach Spitze? Neue Geschlechterperspektiven auf Karrieren in der Wissenschaft. Campus Verlag, Frankfurt am Main. pp. 233–256.

Slide 18

Participation and Availability

- Male Researchers More Visible
  - in Professional Associations
  - as Editors
  - as Recipients of Research Awards[1]
- Male Group Culture Inhibits Active Contributions from and Visibility of Female Executive Board Members
- Women Often Relegated to Position of Spectator[2]

1 Vaid, J. & Geraci, L. 2016: An examination of women's professional visibility in cognitive psychology. Feminism and Psychology. Vol. 26 (3). pp. 292–319. At: http://fap.sagepub.com/content/26/3/292.full.pdf+html (accessed 24.01.2017).
2 Beaufaÿs, S. 2012: Führungspositionen in der Wissenschaft – Zur Ausbildung männlicher Soziabilitätsregime am Beispiel von Exzellenzeinrichtungen. In: Beaufaÿs S. et al. (eds.): Einfach Spitze? Neue Geschlechterperspektiven auf Karrieren in der Wissenschaft. Campus Verlag, Frankfurt am Main. pp. 87–117.

M1: Impact Gender Bias on Assessment of Qualification Times / Pathways Gender Bias in Appointment Procedures: Career Paths 18

Concerning expectations of availability, and participation in things like university self-administration organisations and professional associations, the research has come to the following conclusions:

A study on the professional visibility of women and men in cognitive psychology in the US suggests that men are clearly overrepresented in leadership positions at professional associations, as editors of renowned journals and as recipients of research awards.

Another study, which analyses the composition of executive boards in institutions of excellence as well as their communication patterns, shows that a dominant, male group culture inhibits contributions from and the visibility of female executive board members. As such, women oftentimes feel relegated to the role of spectator.

1 Vaid, J. & Geraci, L. 2016: An examination of women's professional visibility in cognitive psychology. Feminism and Psychology. Vol. 26 (3). pp. 292–319. At: http://fap.sagepub.com/content/26/3/292.full.pdf+html (accessed 24.01.2017).
2 Beaufaÿs, S. 2012: Führungspositionen in der Wissenschaft – Zur Ausbildung männlicher Soziabilitätsregime am Beispiel von Exzellenzeinrichtungen. In: Beaufaÿs S. et al. (eds.): Einfach Spitze? Neue Geschlechterperspektiven auf Karrieren in der Wissenschaft. Campus Verlag, Frankfurt am Main. pp. 87–117.

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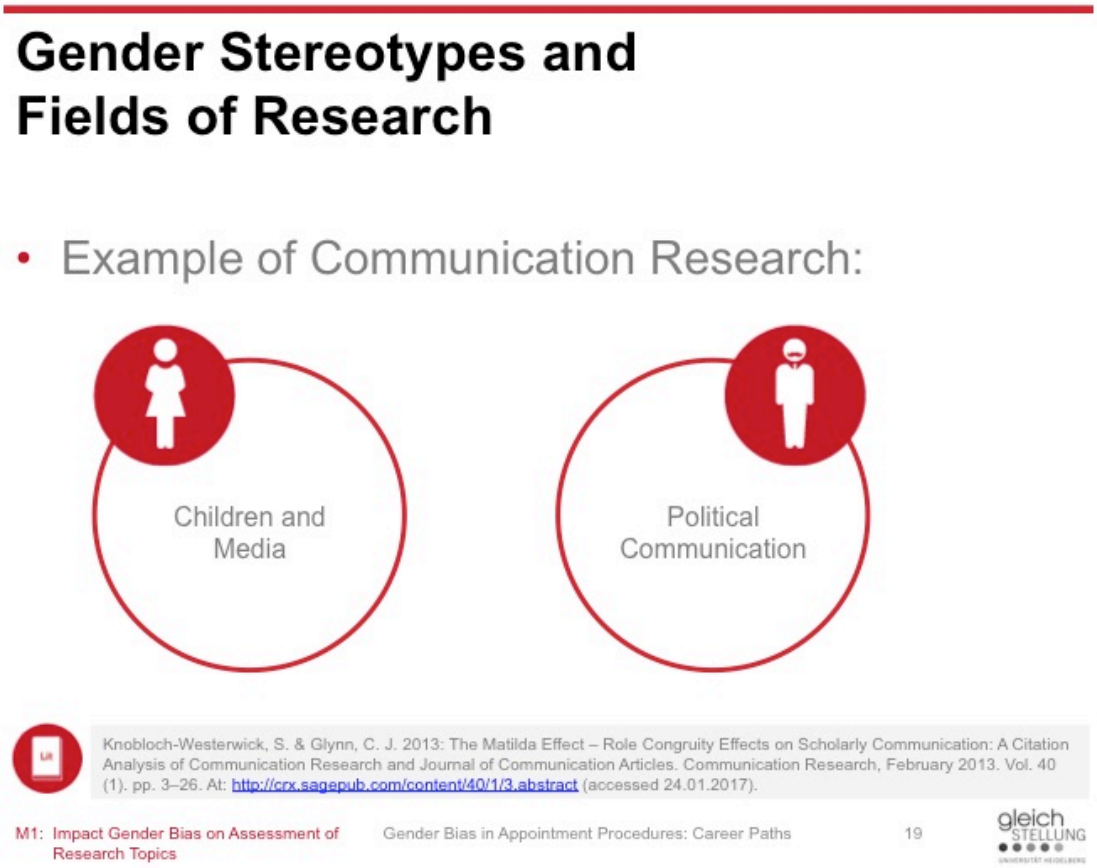

Differences between women and men also become apparent in the context of research fields. Research topics are associated with stereotypically female or male attributes. In communication research, for instance, the topic “Children and Media” evokes female characteristics, whereas the topic “Political Communication” is more often linked with stereotypically male attributes.

Knobloch-Westerwick, S. & Glynn, C. J. 2013: The Matilda Effect – Role Congruity Effects on Scholarly Communication: A Citation Analysis of Communication Research and Journal of Communication Articles. Communication Research, February 2013. Vol. 40 (1). pp. 3–26. At: http://crx.sagepub.com/content/40/1/3.abstract (accessed 24.01.2017).

Slide 20

Research focus within the chosen field is another area where gender bias becomes apparent. A study on the assessment of research articles was able to show that men who publish on a male-typed topic receive the highest ratings – both concerning the scientific quality of the articles and readers' interest in collaborating with the authors.

To some extent, women and men distinguish themselves in how they approach their research as well. Women preferably work from an interdisciplinary perspective and choose their research questions accordingly. In the evaluation of applications, such interdisciplinary and applied research is, however, oftentimes deemed "soft research" and is not as highly valued as works that take a more theoretical approach.

Knobloch-Westerwick, S., Glynn, C. J. & Huge, M. 2013: The Matilda Effect in Science Communication: An Experiment on gender Bias in Publication Quality Perceptions and Collaboration Interest. Science Communication, October 2013. Vol. 35 (5). pp. 603–625. At: http://scx.sagepub.com/content/35/5/603.abstract (accessed 24.01.2017).

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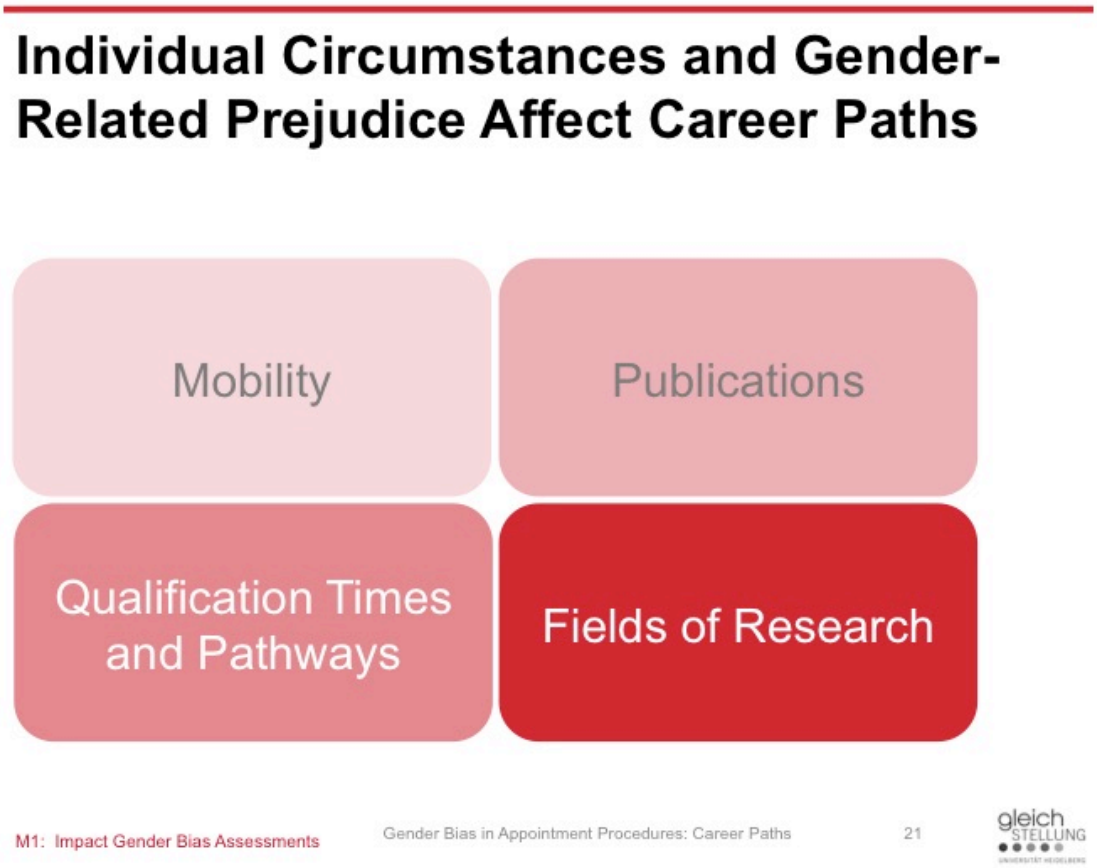

Mobility, publications, qualification times and pathways, and fields of research: Based on the results of studies presented in this module, we have highlighted problematic set-ups in these four areas. What has become clear is that individual circumstances as well as gender-related stereotypes have a major effect on career paths. In the following, we will consider the ways in which gender bias impacts different stages of the appointment procedure. Subsequently, we will present four good-practice examples with which to effectively counteract such gender bias.

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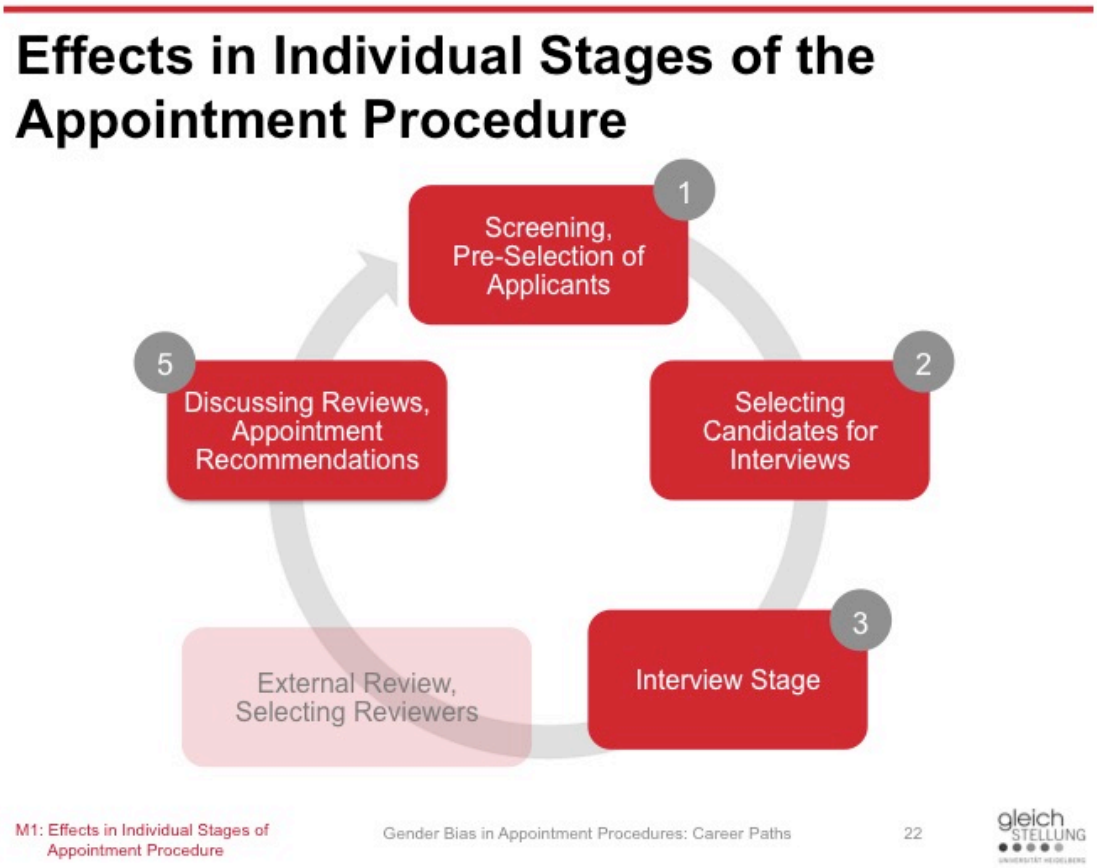


In the assessment of career paths, gender bias crops up at four stages of the appointment procedure in particular.

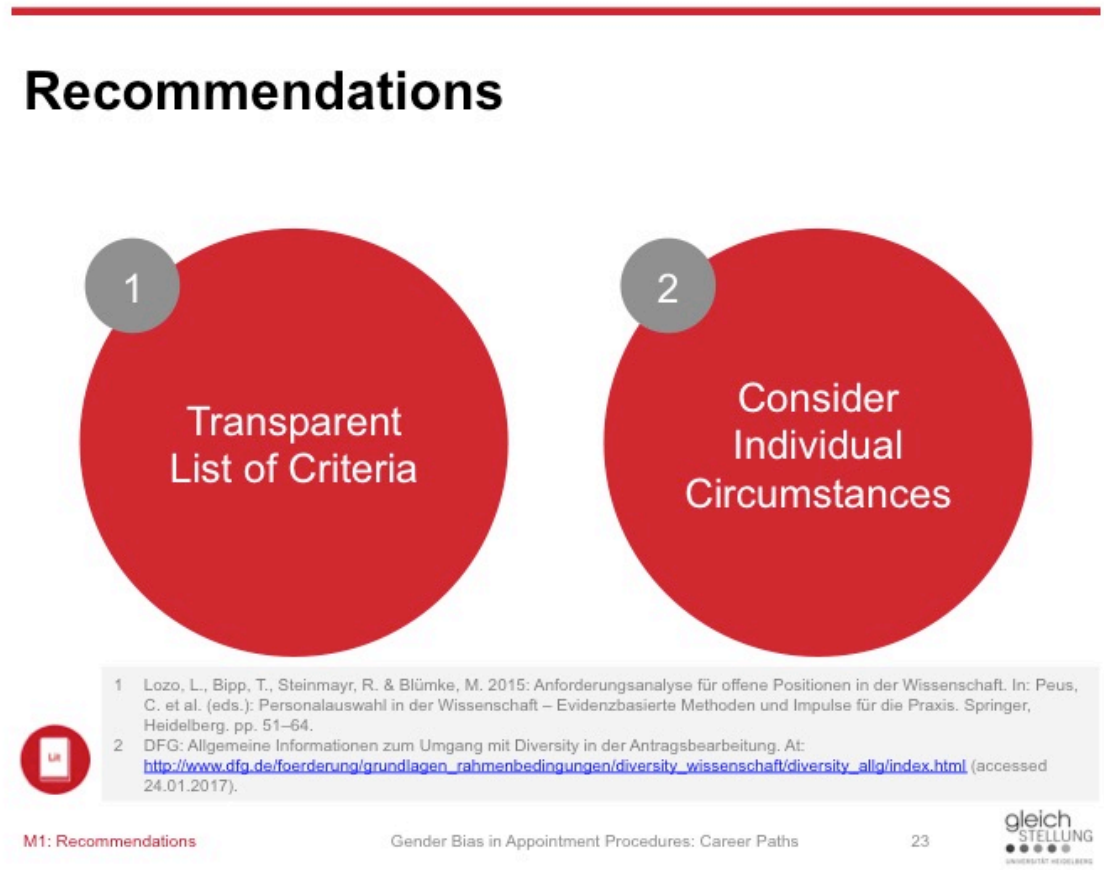
Stage 1: Screening and pre-selection of applicants – Gender bias may manifest itself during the first discussion of applicants if, for instance, academic achievements are evaluated without taking into consideration individual circumstances of life.

Stage 2: Selecting candidates for interviews – In shortlisting candidates for interviews, academic achievements are evaluated against the ideal of the *homo academicus* with its traditionally male connotation.

Stage 3: Interview stage – If the application documents contain information on individual circumstances, these can be addressed during the interview with the commission.

Stage 5: Discussing reviews, appointment recommendations – When discussing external reviews, potential prejudice has to be taken into consideration as well.

Slide 23



There are certain guidelines to ensure that applications are assessed without prejudice. In the following, we outline four examples of good practice:

Recommendation 1: Develop and systematically apply a list of criteria – It is helpful to devise and systematically apply a transparent set of criteria based on the specifics of the job posting for every stage of the appointment procedure. This way, it is possible to avoid effects of gender bias in the early stages of the appointment procedure. The aim of this catalogue of criteria is to ensure objectivity in the assessment of career paths and render the appointment procedure transparent.

Recommendation 2: Consider individual circumstances in applications – Another suggestion to ensure a fair and transparent assessment of career paths is to take into account the applicant's personal circumstances as they are displayed in application documents. Such individual circumstances may include pregnancy and childbirth, childcare and family responsibilities, looking after family members who are in need of care, disability or chronic illness, prolonged periods of illness or times of military and civilian service. Disclosing these personal circumstances is, of course, completely voluntary – if this information is provided, however, it is essential to handle it with sensitivity.

1 Lozo, L., Bipp, T., Steinmayr, R. & Blümke, M. 2015: Anforderungsanalyse für offene Positionen in der Wissenschaft. In: Peus, C. et al. (eds.): Personalauswahl in der Wissenschaft – Evidenzbasierte Methoden und Impulse für die Praxis. Springer, Heidelberg. pp. 51–64.

2 Allgemeine Informationen zum Umgang mit Diversity in der Antragsbearbeitung. At: http://www.dfg.de/foerderung/grundlagen_rahmenbedingungen/diversity_wissenschaft/diversity_allg/index.html (accessed 24.01.2017).

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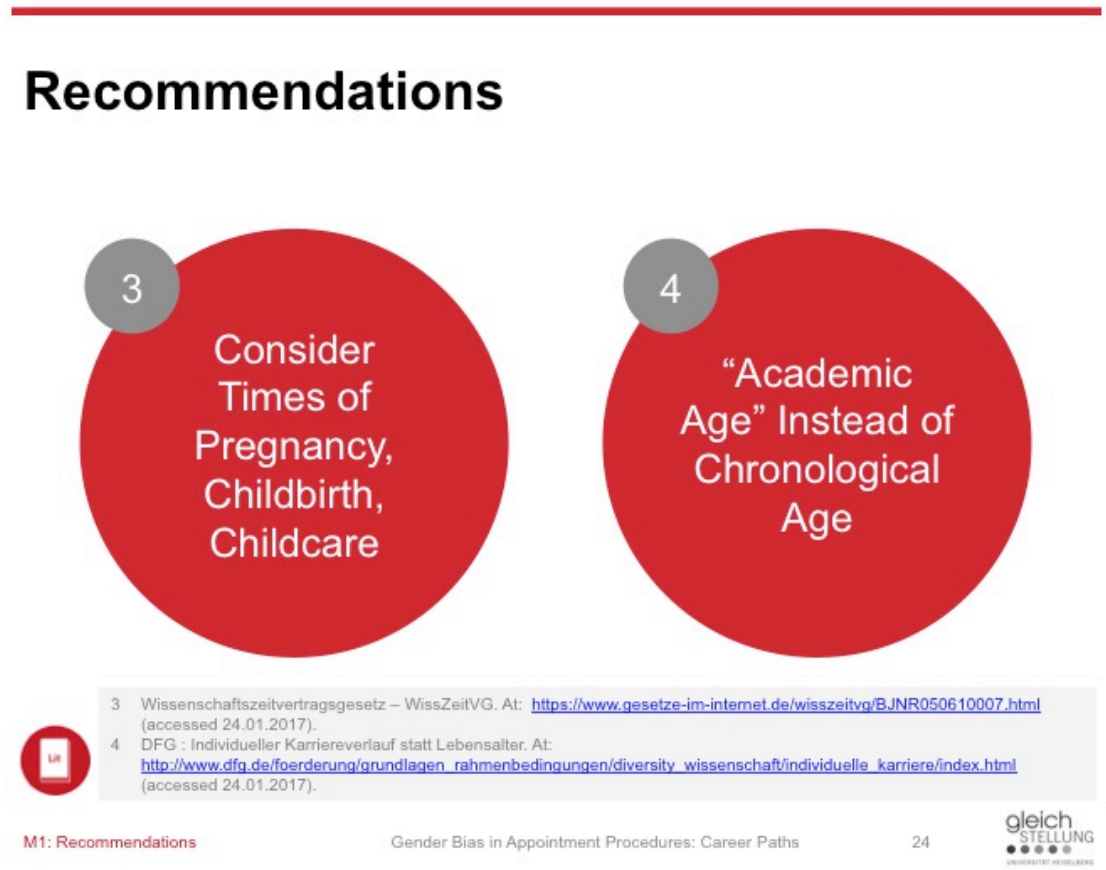

Recommendation 3: Consider times of pregnancy, childbirth and childcare when calculating "academic age"
According to the Deutsche Forschungsgemeinschaft (DFG, German Research Association), an example of good practice is to take into account pregnancies, childbirth and childcare when assessing the "academic age" of an applicant. The Wissenschaftszeitvertragsgesetz (German law on fixed term employment in academic contexts) includes regulations to that effect as well. Two years can be factored in per child.

Recommendation 4: Consider academic age instead of chronological age
In order to conduct appointment procedures in a gender-fair manner, it is advisable to take into account the academic age instead of the chronological age when assessing career paths. The academic age thereby reflects the professional vita within a subject field. The DFG or the European Research Council (ERC), for example, do not define the category of "young researchers" in terms of chronological age, but instead consider the researcher's vita and qualification steps in order to assess career stages subject-specifically.

3 Wissenschaftszeitvertragsgesetz – WissZeitVG. At: https://www.gesetze-im-internet.de/wisszeitvg/BJNR050610007.html (accessed 24.01.2017).
4 DFG : Individueller Karriereverlauf statt Lebensalter. At: http://www.dfg.de/foerderung/grundlagen_rahmenbedingungen/diversity_wissenschaft/individuelle_karriere/index.html (accessed 24.01.2017).

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We appreciate your taking the time to consider the issue of gender bias in the appointment procedure. Hopefully, we have broadened your knowledge about this important topic and were able to provide you with tools to counteract gender bias and its effects in appointment procedures. Do not hesitate to address any of the above topics in your commission work whenever relevant.