

Gender equality in academia: Progress or not?

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What I want to talk about

- The twin challenge in gender equality
- Gender balance in all scientific fields – or not?
- Equal opportunities – or not?
- Final remarks

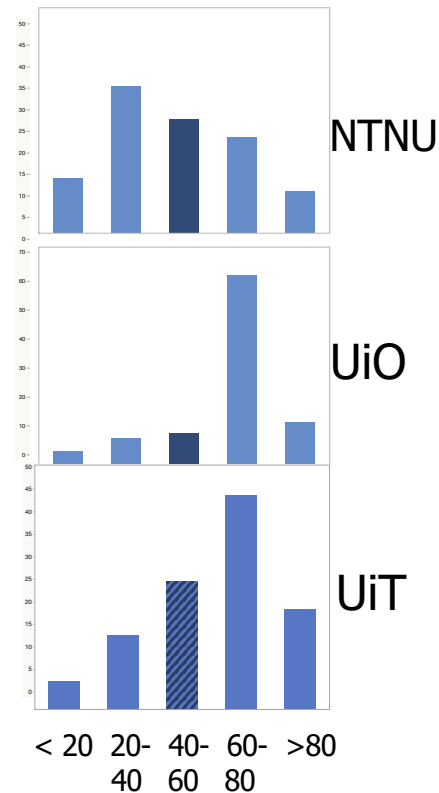
The twin challenge

- Equal number of women and men in all scientific areas (the 40-60% goal)
 - Challenge: inappropriate culturally determined "directing" of men and women towards specific areas.
 - Often justified on the basis of talent utilization
- Equally rapid advancement for women and men in the academic career system
 - An indicator of the real goal: equal opportunities for women and men - a goal supported by legislation.

Equal numbers of women and men in all
scientific areas

40-60 % in all areas??

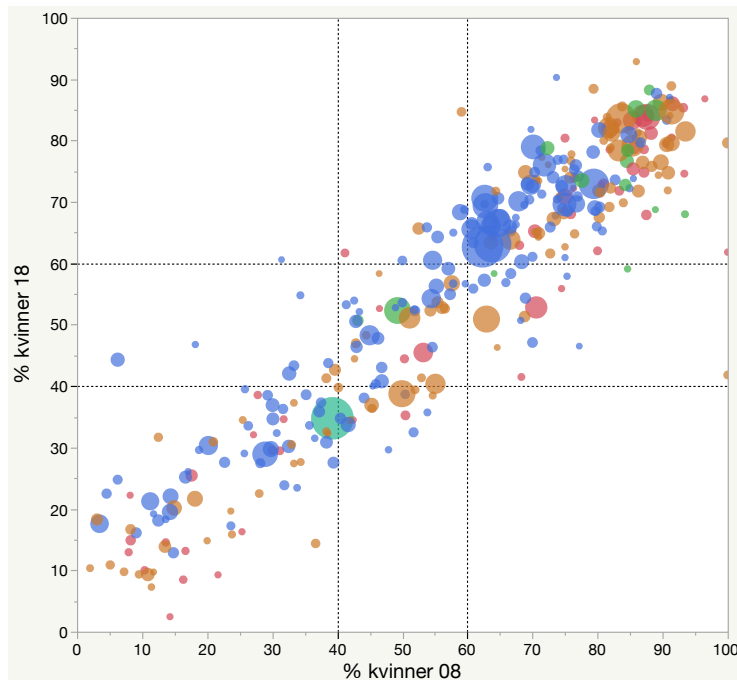
- In the research system's recruitment base, we are very far from the goal of equal numbers of women and men in all subjects
- Here illustrated by the gender distribution among candidates from various master's programs. Balanced studies: dark columns
- *Today's students indicate the recruitment basis for professors 30 years from now*



Proportion of candidates with different proportion of women among fellow students

A changing pattern?

Percentage of women in 2008 og 2018 (Samordna opptak)



Color: Type of institution
(Blue: The old universities)

Size: Number of students

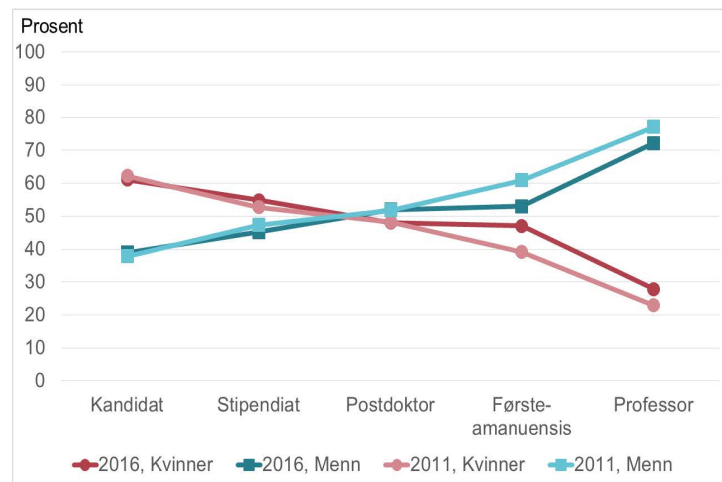
Summary

- Generally large and highly stable differences between areas preferred by men and women
- More detailed studies indicate some hope for change in some areas - provided willingness to seriously adjust content of studies

Equal career opportunities for
males and females?

What gives the correct picture of career opportunities?

Tabell: Kvinner og menn på ulike nivå i karrierestigen ved universiteter og høyskoler i Norge i 2016 og 2011



Kilde: NIFU/DBH

Nifu: Kvinner og menn har lik mulighet for akademisk karriere

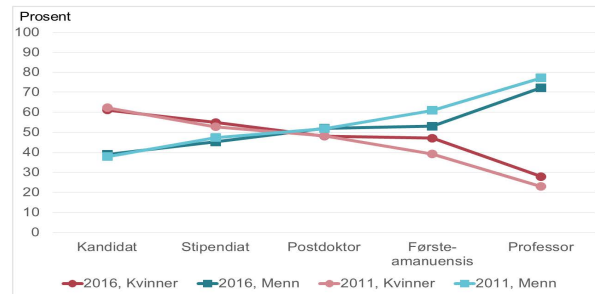
Karriere. Sannsynligheten for å gjøre karrierehopp i akademia er like stor for kvinner som for menn, går det fram av en ny analyse som legges fram i Arendal.

A: Scissor diagram

B: NIFU report 2019/10: Attraktive akademiske karrierer

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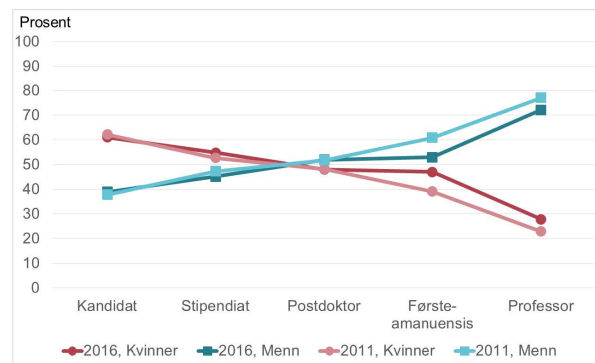
Kilde: NIFU/DBH



Answer: None of them

What gives the correct picture of career opportunities??

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Neglect time trends in the recruitment basis

Only looks at the middle part of the career track

Does not take international mobility into account

Equal careers for males and females?

- Difficult to give a fully correct answer due to international mobility, but...
- Percentage of females drops from master candidate level to PhD and further to postdoc level; however, mainly caused by international mobility.
- Essentially no further fall to associate professor
- Substantial drop to professor level, and especially to the top level as leader of CoEs (17%).

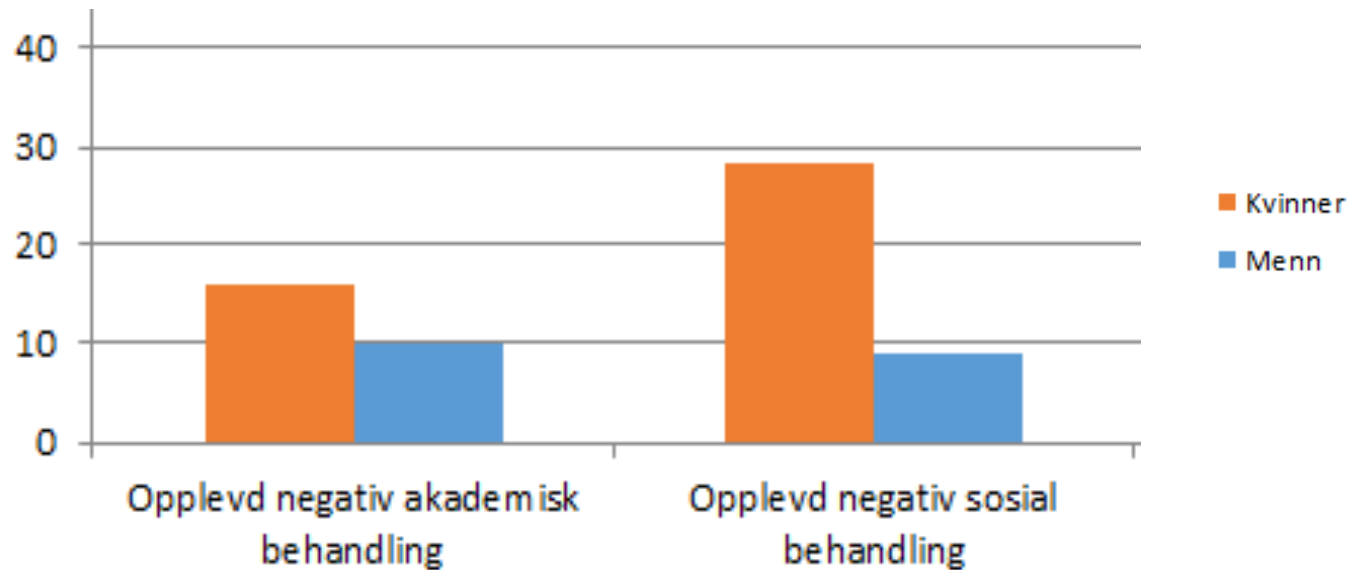
Potential factors still slowing careers for women

- The working environment: Lack of academic support and (micro)harassment?
- Effects of international mobility?
- Bias in evaluations?
- Effects of hierarchies?

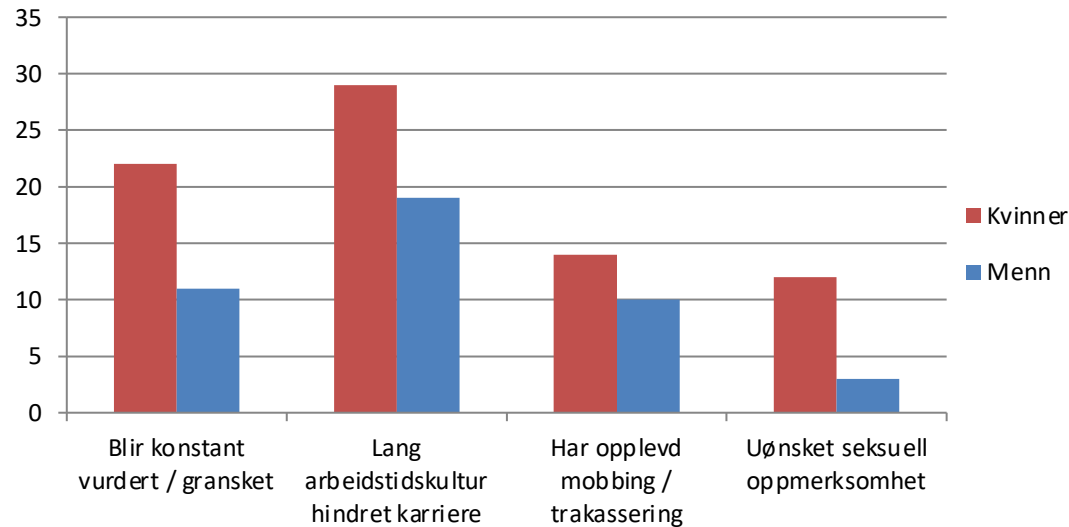
The social/academic environment

FRONT student survey (n=213)

Negative academic and social experience



FRONT employee survey (n=800+)



Clearly indicates some serious challenges in our academic environment, resulting in accumulated disadvantages for women.

Equal career opportunities?

Summary working environment

- Women report much higher frequency of barriers to career (“micro-harassment”, mobility difficult, exclusion from academic networks, constantly scrutinized...)
- Unknown effect on career development, but indicates remaining marked working environment issues that must be taken seriously by universities.

International mobility

Internationalization is vital to academia, but

- International mobility is consistently reported to be markedly more difficult for females than men.
- A marked fall in female percentages from master candidate (57%) to PhD (51%) and postdoc (45%) mainly caused by higher fraction of men among academic immigrants
- Announced full professorships: 30% of those employed are men from abroad; 10% are non-Norwegian females.

Implicit bias in evaluation processes?

- There are several studies of implicit bias, not all with equal results, but the majority shows results supporting the ones presented.
- Typically experimental studies based on written material with fake identities, e.g. evaluators get (fake) CVs that are identical except male or female names.
- Difficult to repeat – you have to lie about the purpose of the study – can only be made a limited number of times.

Parenthood and norms: Motherhood Penalty and Fartherhood Bonus.

Fictional applicants to a industrial job;

Correll, Bernard and Paik; American Journal of Sociology, 2007.

- Mothers are considered significantly less competent than women without children
- Fathers are considered slightly more competent than men without children
- Non-mothers are about as “good” as men.

	Mothers	Non-mothers	Fathers	Non-fathers
Competence	5.19**	5.75	5.51	5.44
Commitment	67.0**	79.2	78.5*	74.2
Salary recommended (\$) ...	137.000**	148.000	150.000**	144.000
Recommend for management	.691**	.862	.936 ⁺	.851

Consequences of writing one extra paper on the probability of earning tenure in economics

- Solo-authored research
 - Men: 8 %
 - Women: 9 %
- Co-authored research
 - Men: 8 %
 - Women: 2 %
- Source: Heather Sarsons “Gender Differences in Recognition for Group Work”

Consequences of writing one extra paper on the probability of earning tenure in economics

- When a **male** economist is a co-author
 - With women 6 %
 - With both genders 8 %
 - With men 7 %
- When a **female** economist is a co-author
 - With women 9 %
 - With both genders 4 %
 - With men 0 %
- **So who is considered to be doing the intellectual work in a collaboration?**

Effect of displaying biases?

- Maybe **yes**
- A recent study in PNAS indicate a possible change in the natural science area: indicates some preference for women with equal qualifications in the STEM area.
- Some difficulties with this study (knowledge of earlier studies), but may still give hope that **displaying biases might reduce them.**

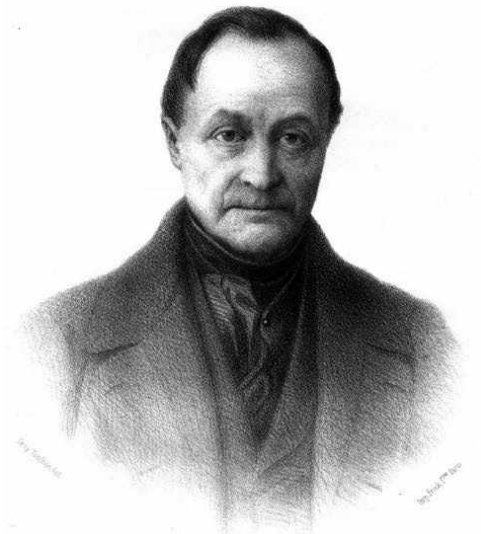
The indirect effects

..which favors men without directly being “aimed” at doing so

Hierarchies

Introductory example: Comte's classical hierarchy

- Comte early positivist - main works 1820-1840
- Introduced developmental stages: the theological, the metaphysical and the positive (the ideal).
- Ranked sciences by how close they were his ideal on how to conduct science.



Comte's classical hierarchy

Ranking of sciences:

1. Mathematics
2. Astronomy
3. Physics
4. Chemistry
5. Biology
6. Sociology



Do we (in our century) still find the excellent at the top of Comte's hierarchy?

First RCN YFF-grants 2002; only order to the committee: "Find the most excellent".

	% YFF of PhDs
1. Matematics	3.1
2/3. Astrophysics/Physics	3.7
4. Chemistry	2.0
5. Biology	0.9
6. Sociology	0

% YRR: Number of YFF-grants per PhD in the area x 100

Comte's classical hierarchy : ... and where are the women?


	% YFF of PhDs	% women in permanent positions
1. Mathematics	3.1	12
2/3. Astrophysics/Physics	3.7	14
4. Chemistry	2.0	18
5. Biology	0.9	20
6. Sociology	0	41

Prestige in medical specialties,
importance of specialties
- and where do we find the women?

Prestige in medicine

- Examined by Album (1991), stability suggested by Album and Westin (2008), and by three studies of prestige of diseases.
 - Large differences in prestige scores, strong similarity between established physicians and advanced students
- Neurosurgery
 - Cardiology
 - Thoracic surgery
 - Anesthesia
 - Surgery-General
 - Orthopedic surg.
 - Pediatrics
 - Oncology
 - Internal medicine
 - Gastrokirurgi
 - Gynecology
 - Reumasurgery
 - Eye
 - Ear, nose, throat
 - Neurology
 - Lung
 - Rheumatology
 - Physical medicine
 - General Practice
 - Psychiatry
 - Skin
 - Geriatrics

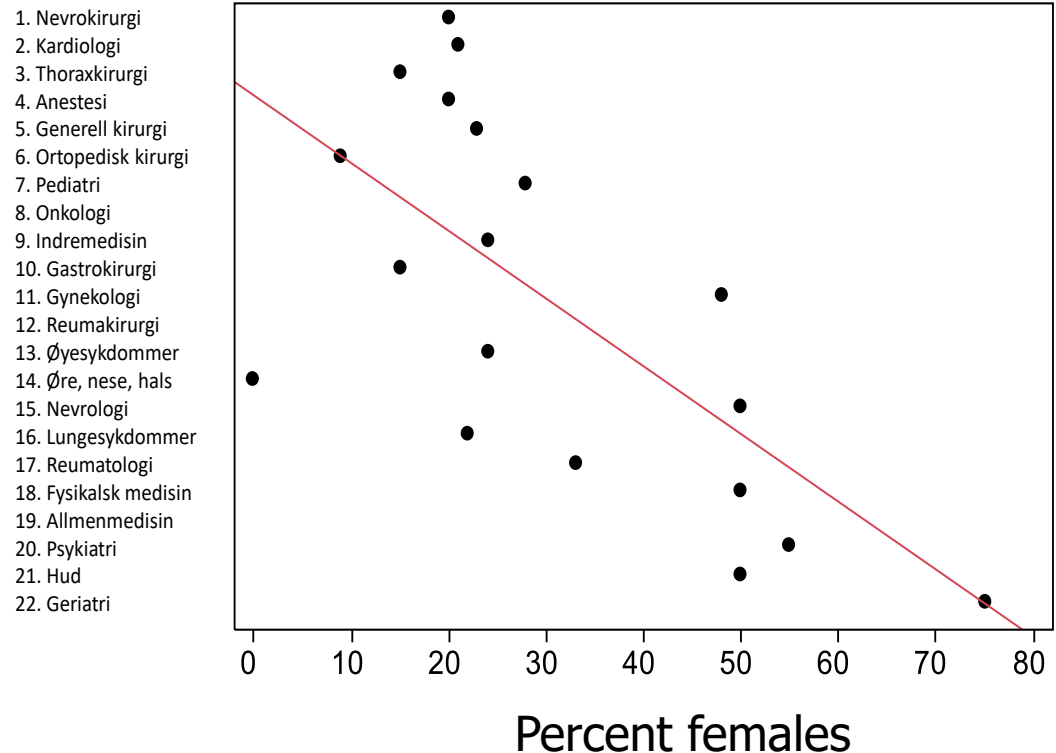
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 - **Lønning Commission II (NOU 1997: 18): Two main priority areas**

- Neurosurgery
 - Cardiology
 - Thoracic surgery
 - Anesthesia
 - Surgery-General
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 - Lung
 - Rheumatology
 - Physical medicine
 - General Practice
 - **Psychiatry**
 - Skin
 - **Geriatrics**

Where in the hierarchy are the women?

- Prestige ranking versus female percentage in the specialties at Copenhagen univ. (After Henningsen, 1999)

Figur 1: Prestisje og kvinneandel i ulike medisinske spesialiteter.



Excellence in the humanities

- A counting from 2014 showed that all 27 elite grants in N and DK were given in five areas (philosophy, history, archeology, music, linguistics) only education about 40 % of the students at UiO.
- *Areas without prizes: All 8 clearly female dominated*
- *Areas with prizes: 4 out of 5 have a majority of male students or about equally many of both genders*

Stable hierarchies? Honours study program at UiO for the ambitious student

MN-faculty vs. Comte:

1. Matematikk
2. Astronomi
3. Fysikk
4. Kjemi
5. Biologi
6. Sosiologi

Humanities:

All three HF honours studies were among the 5 (out of the 13) study programs associated with elite prizes

Concluding remarks

- Norms were primarily established by men, they seem (still) to be strong and they affect academic quality rankings
- Effects of norms on gender equality is often indirect, but nonetheless may affect females markedly
- Some indications of improvements, but slow...
- There are no easy "fix" to change gender imbalances and to correct biases, but we will certainly change nothing unless such effects are discussed and examined, and remedies tested.