

Towards equality in science

Prof. Lutgarde Buydens

Chemical Sciences for Horizon Europe, education & employability

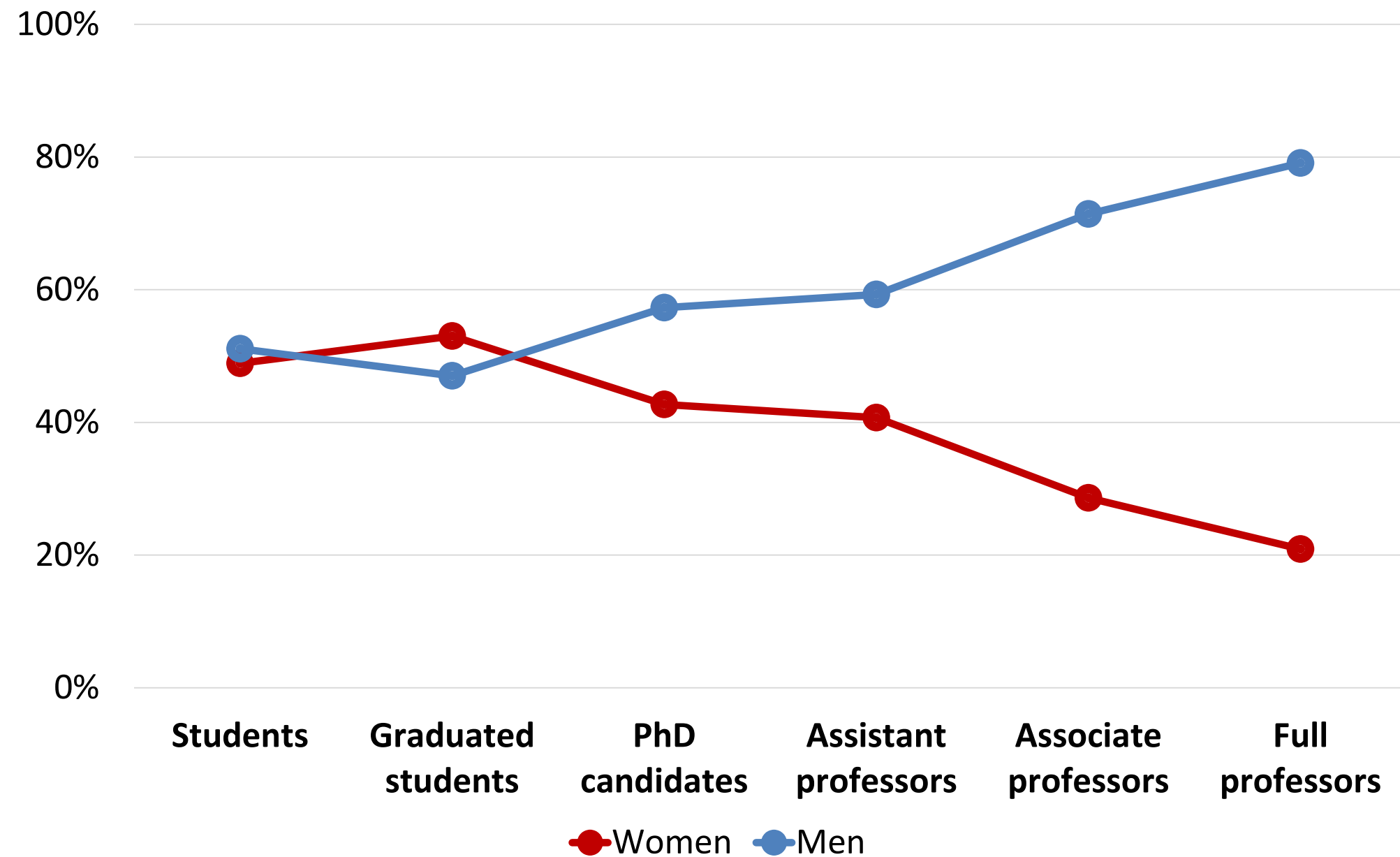
Brussels, 7 March 2019

Gender And Diversity

- Is there inequality in science?
- Facts or emotions?
- It is complex
- Can and should we do something?
- Focus on gender
- mutatis mutandis for Diversity



Dutch Academia: The Leaky Pipeline



Important points with inequality

- 1 It is complex**
There is not one simple cause for inequality and not one simple fix.
- 2 We don't judge**
We all categorize people and have implicit biases and it is a very human thing to do.
- 3 You can do something**
There are things you can do differently to create a more inclusive work environment and attract more diverse talents.

Why is inequality a problem?

1. Social justice case

as an organization we should give all students and employees equal opportunities.
We should assess people independent of the social categories they belong to.

2. Business case

by excluding groups we miss talents that otherwise could have contributed to science.
A diverse team can improve the performance of the team. If we do not do anything about it, we harm ourselves.

What are the major mechanisms causing inequality?

- **Stereotypes** are unconscious expectations how people in a certain group are (and should be)
 - Advantage:** fast processing of information
 - Disadvantage:** inaccurate processing (too fast)
- Often conflicting with **explicit** thoughts ('implicit bias')



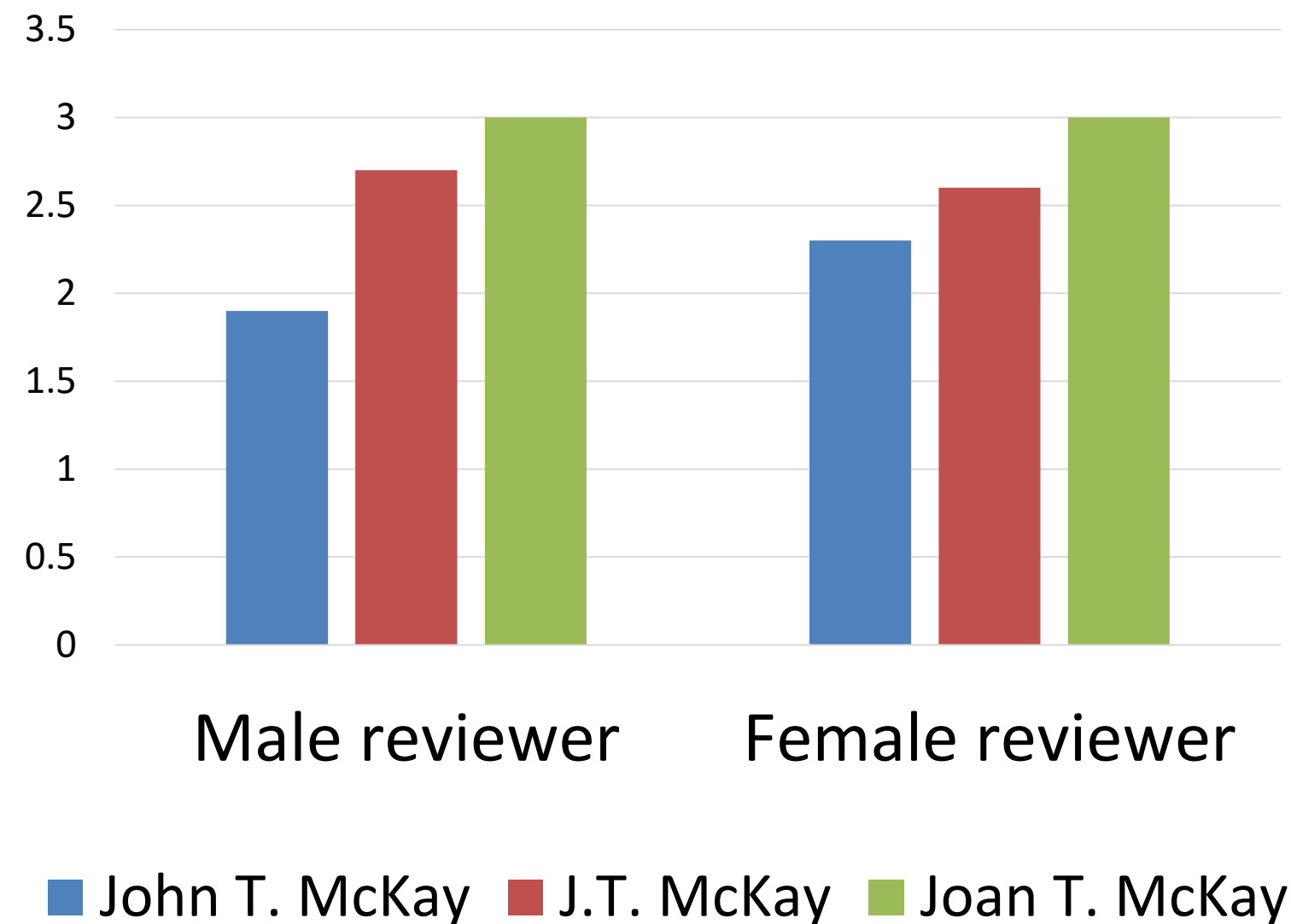
What are the major mechanisms causing inequality?

- Stereotypes and biases play an important role in academia



EXAMPLE 1 : review of a science paper

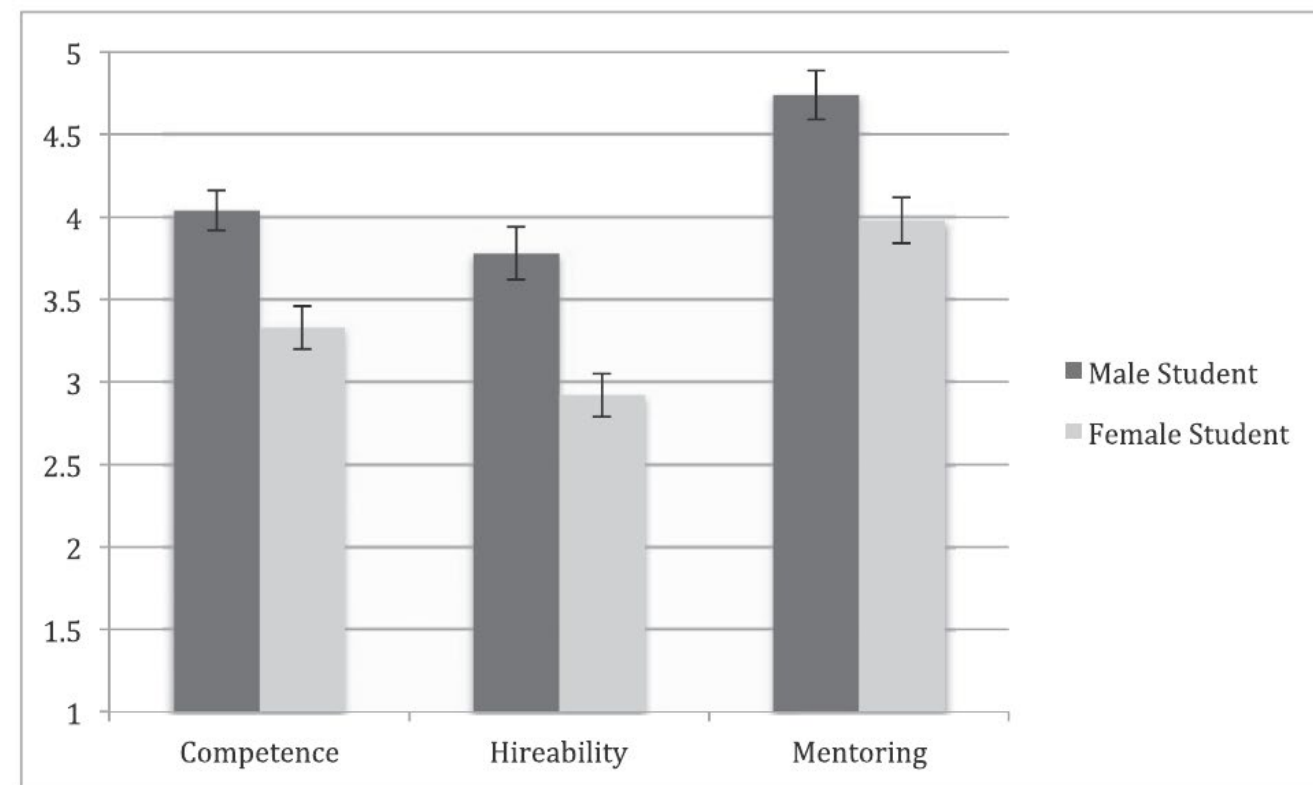
- 180 women, 180 men asked to review and rate a math paper (1=best, 5=worst mark)
- Same paper with author: **J.T. Mc Kay** or **John T. Mc Kay** or **Joan T. Mc Kay**



EXAMPLE 2: Judging CV's

Job application for an undergraduate lab manager position:

- Male and female science professors at R1 universities each rate one application
- Male applicants were rated more competent, more hireable, more suitable for mentoring, and they were offered higher salaries



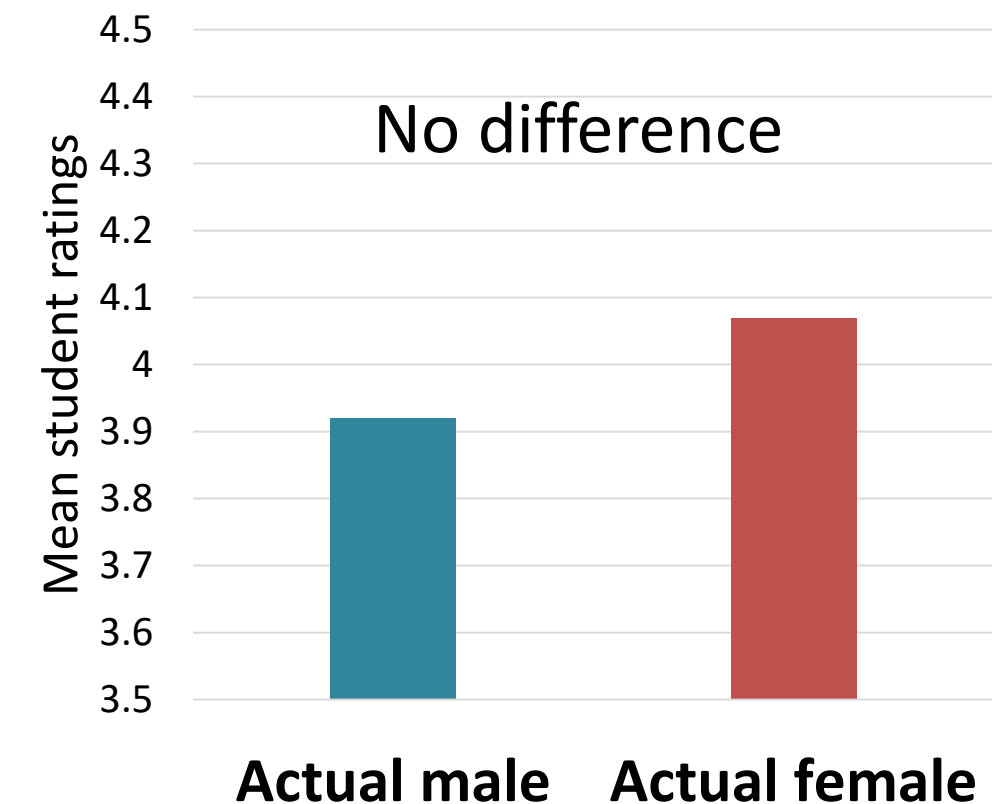
Moss-Racusin, C. A., J. F. Dovidio, et al. (2012). Science faculty's subtle gender biases favor male students. PNAS

EXAMPLE 3: Teaching Evaluation

Online course taught by two instructors: 1 woman, 1 man

- False belief manipulation:
50% of the students believed that their instructor was a man while she was a woman, or the other way around
- No significant difference in rating between both instructors

	Perceived gender	Woman	Man
Actual gender	Woman	Group A	Group B
	Man	Group C	Group D

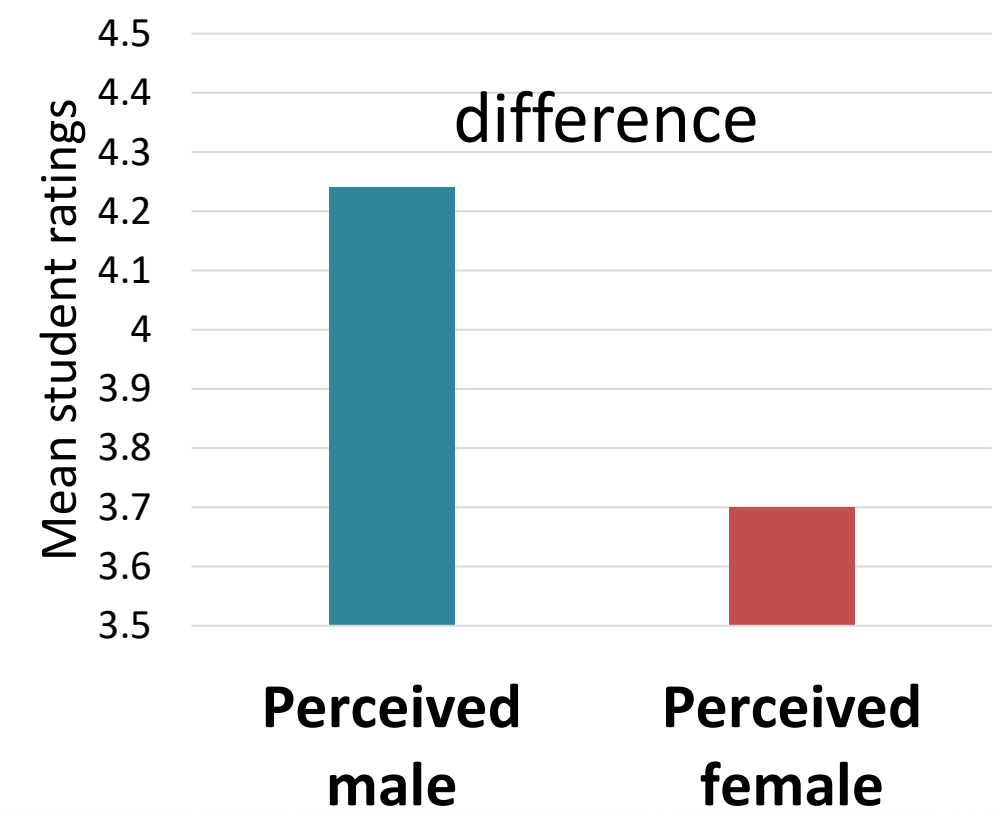


EXAMPLE 3: Teaching Evaluation

Online course taught by two instructors: 1 woman, 1 man

- False belief manipulation: half of the students believed that their instructor was a man while she was a woman, or the other way around
- No significant difference in rating between both instructors
- Perceived male instructor was significantly higher rated

	Perceived gender	Woman	Man
	Actual gender	Group A	Group B
	Actual gender	Group C	Group D
	Man		



EXAMPLE? : More men than women receive their PhDs *cum laude*

- It is about sponsorship and perceived excellence

Cum laude promoties aan universiteiten in Nederland, in procenten
van alle promovendi van dezelfde sekse

■ Mannen ■ Vrouwen

Universiteit Utrecht (2014 t/m 2017)



TU Eindhoven (2010 t/m 2017)



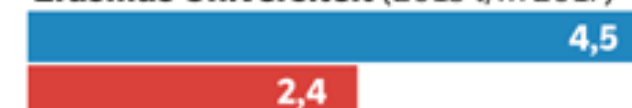
TU Delft (2013 t/m 2017)



Wageningen University & Research (2000 t/m 2017)



Erasmus Universiteit (2015 t/m 2017)



Open Universiteit (1987 t/m 2018)



Rijksuniversiteit Groningen (2012 t/m 2017)



Universiteit van Amsterdam (2010 t/m 2017)



Radboud Universiteit (2013 t/m 2017)



Vrije Universiteit (2013 t/m 2017)



Universiteit Maastricht (2013 t/m 2018)



Tilburg University (2009 t/m 2017)

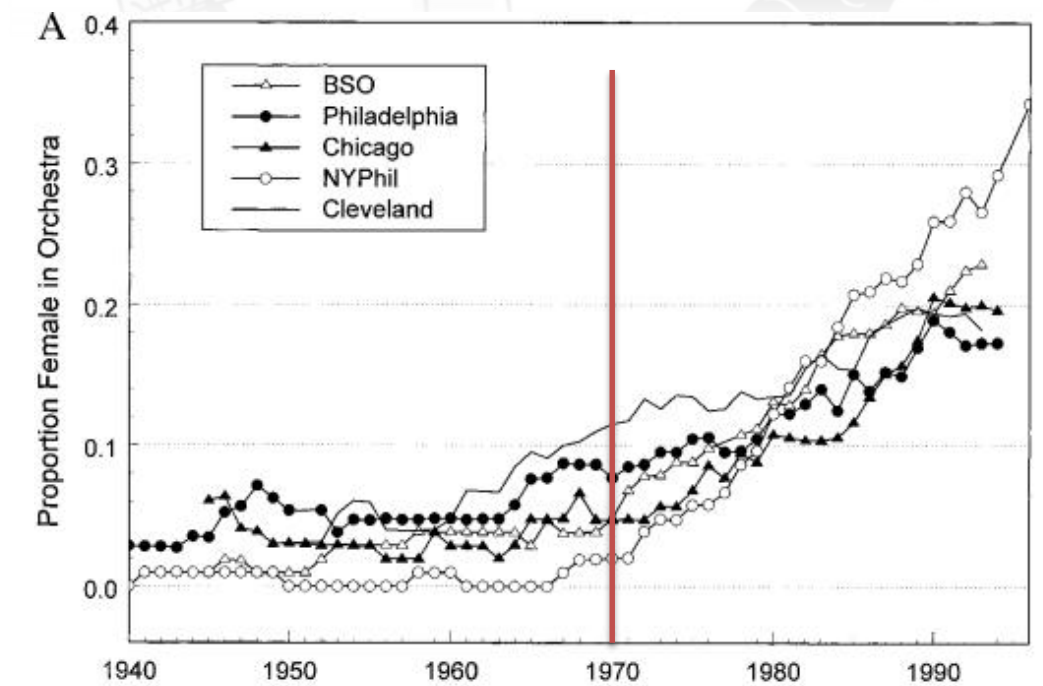


NRC 201018 / DM / Bron: Onderzoek NRC

What's next? What can you do?

- 1970-1996 many US symphony orchestras began conducting screened auditions
- Data from 14,000 applicants show: probability increased that a woman would pass preliminary rounds by 50% after screen has been introduced

Anonymous application procedure helps but impossible in science



What's next? What can you do?

1. Awareness, awareness, awareness
2. Procedures and some best practices
 - Install a gender and diversity committee
 - Introduce obligatory awareness training for hiring and selection committees
 - Offer financial support for pregnant staff to safeguard their productivity and talent
 - Provide guidelines on how to write job vacancy texts to attract diverse talents

www.ru.nl/science/about_the_faculty/our-profile/gender-diversity-policy/mission-actions/

EU: Inequality in science?

European referee panels?

How are biases addressed?

Is there inequality in Dutch academia?

If nothing is done it will stagnate

Aandeel vrouwelijk wetenschappelijk personeel per functiecategorie

Peildatum 31 december, exclusief HOOP-gebied gezondheid

Selecteer een universiteit:

(All)

Selecteer een sector:

Natuur

In aantal

Personen

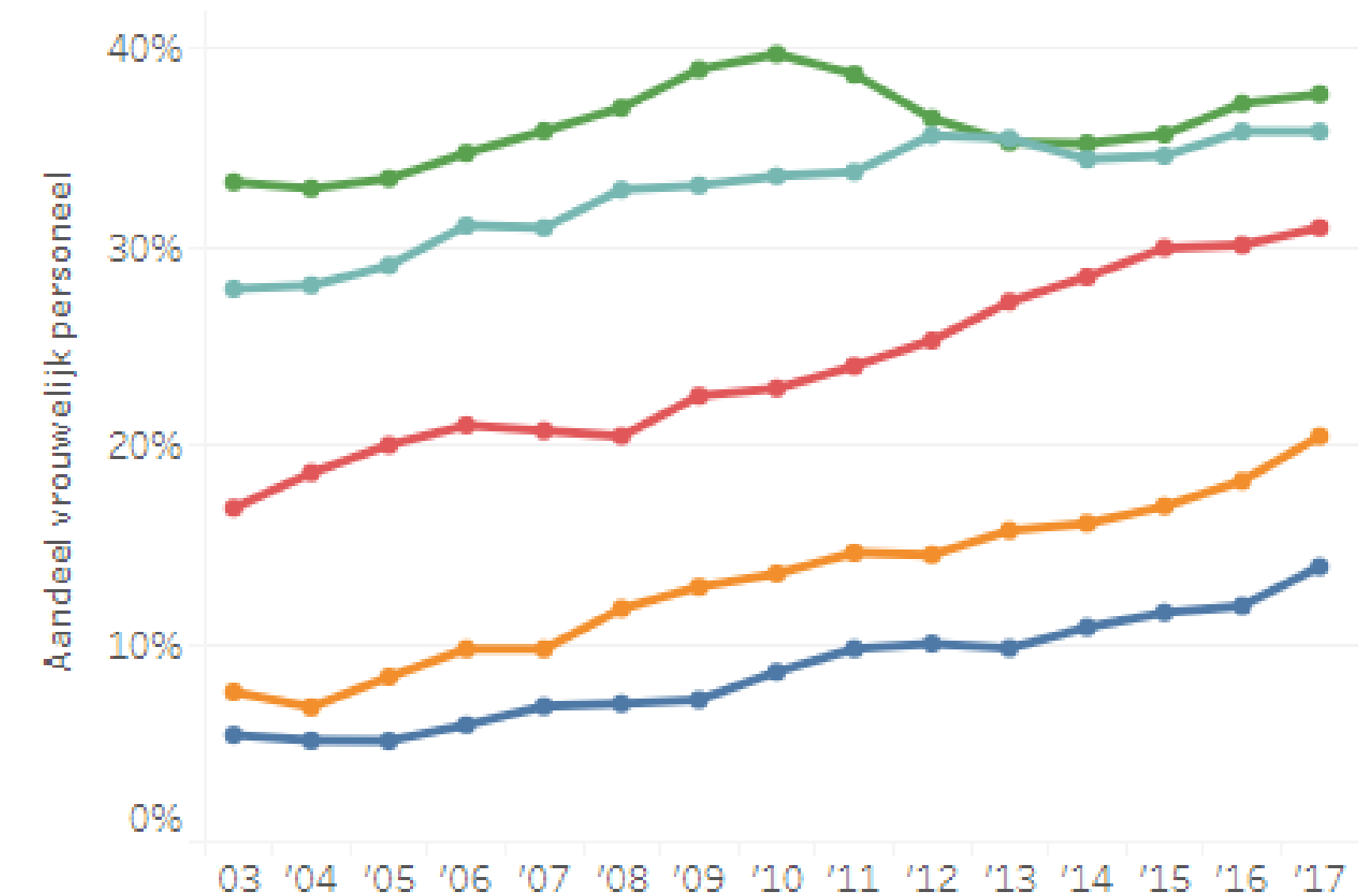
Full professor

Assistant prof.

PhD candidates

Associate prof.

Other scientific employees



It doesn't get solved by itself. Waiting is not an option.

