

# Towards equality in science

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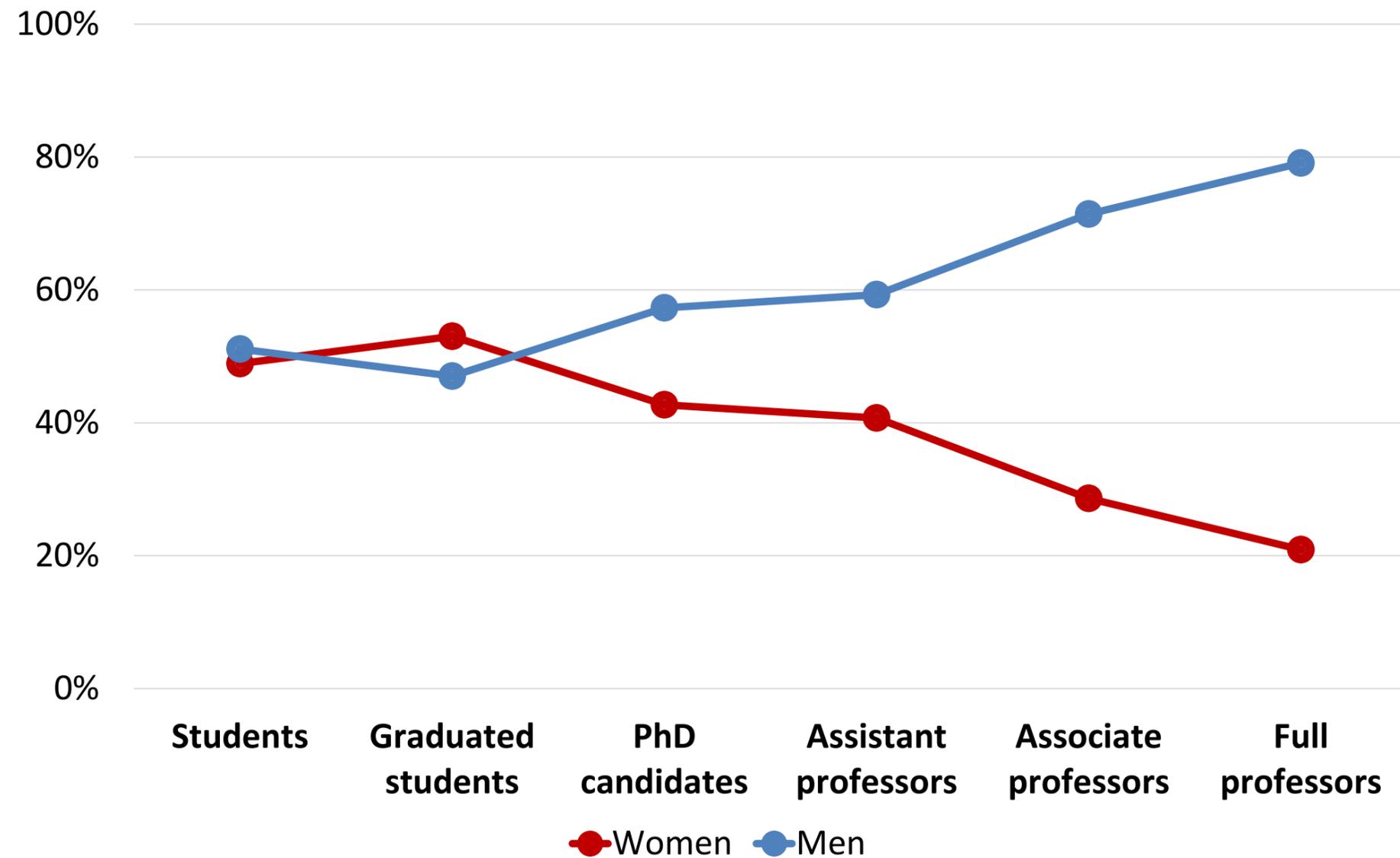
*Brussels, 7 March 2019*

# 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

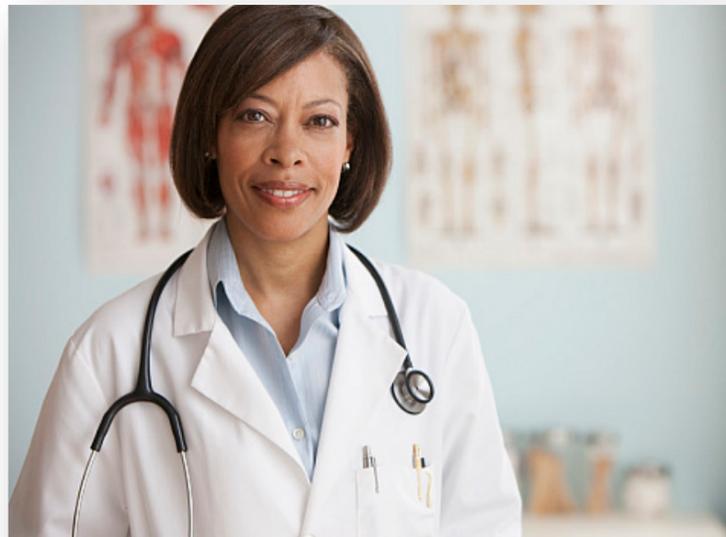
as an organization we should give all students and employees equal opportunities. We should assess people independent of the social categories they belong to.

## 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’)



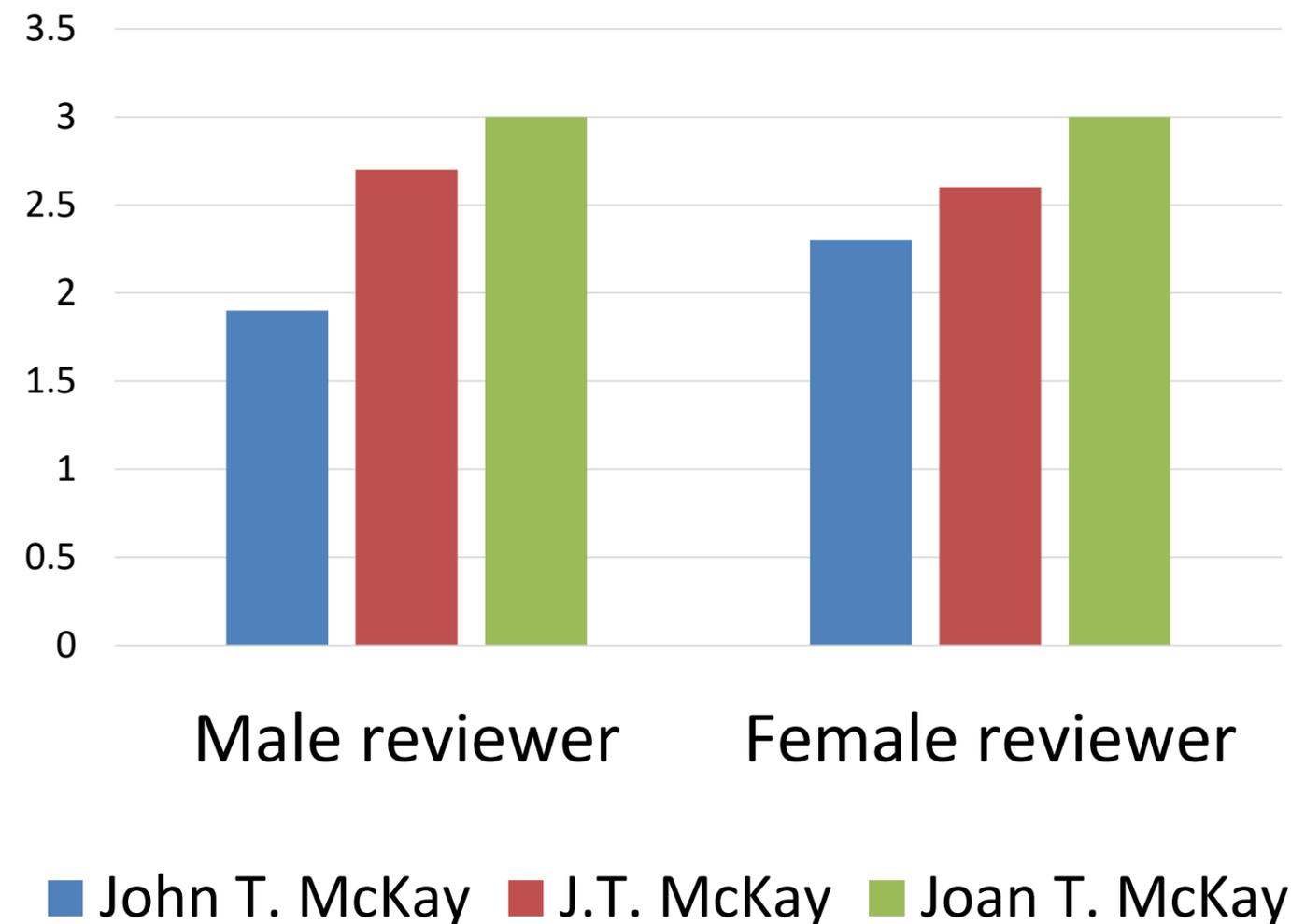
## What are the major mechanisms causing inequality?

- Stereotypes and biases play an important role in academia



## EXAMPLE 1 : review of a science paper

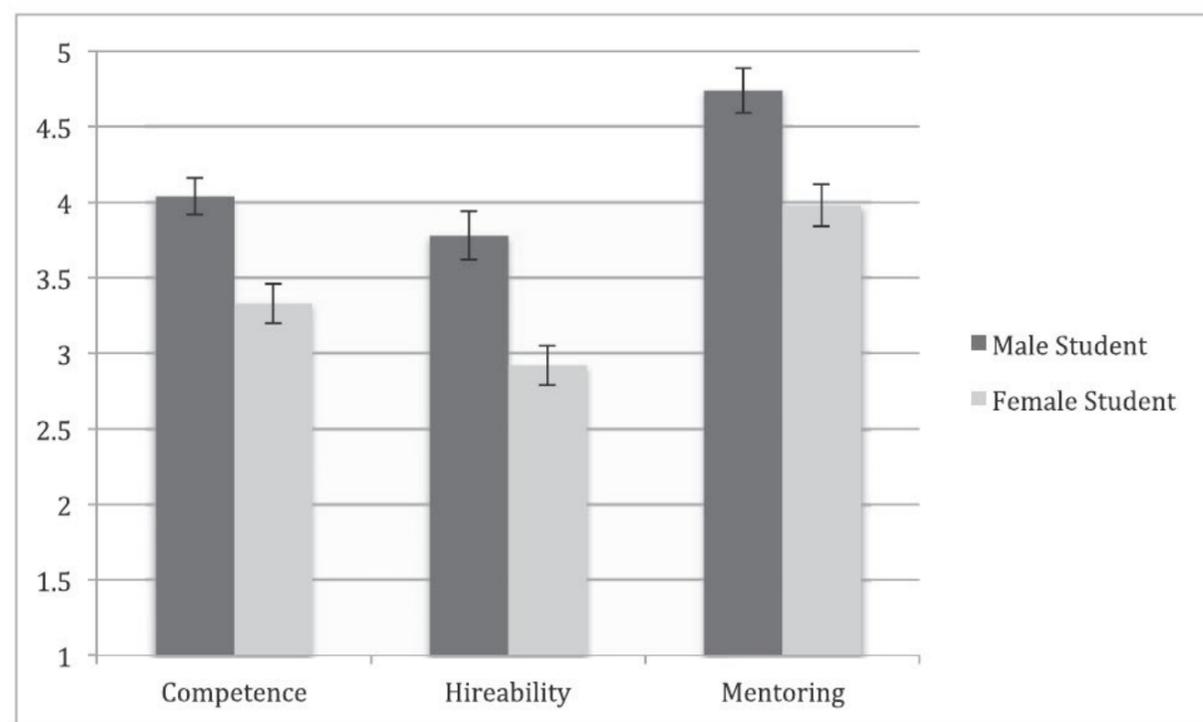
- 180 women, 180 men asked to review and rate a math paper (1=best, 5=worst mark)
- Same paper with author: **J.T. Mc Kay** or **John T. Mc Kay** or **Joan T. Mc Kay**



## 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



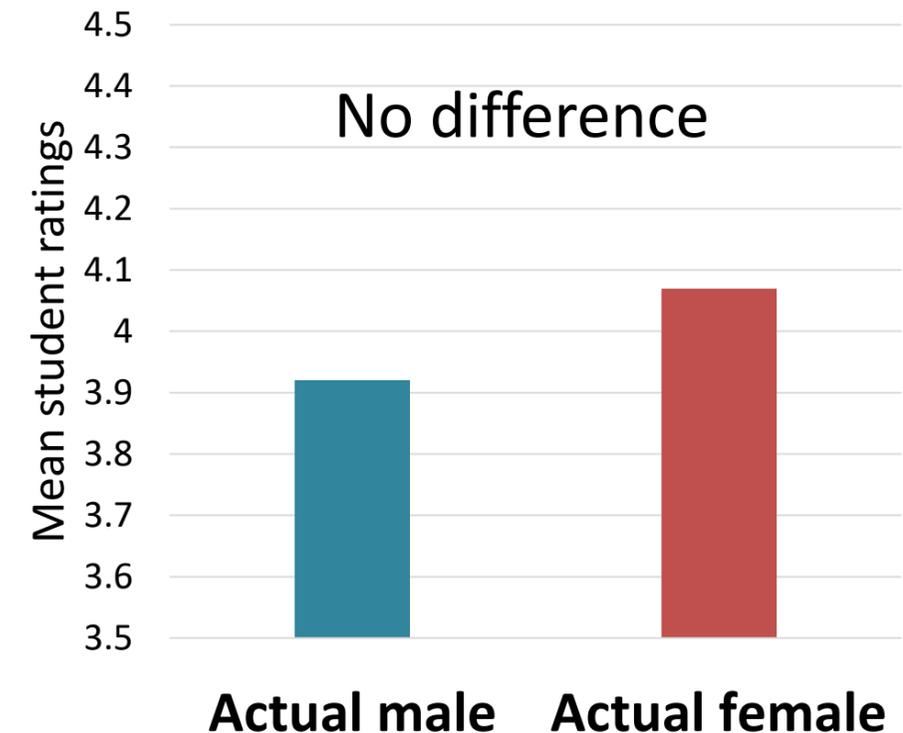
*Moss-Racusin, C. A., J. F. Dovidio, et al. (2012). Science faculty's subtle gender biases favor male students. PNAS*

### 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

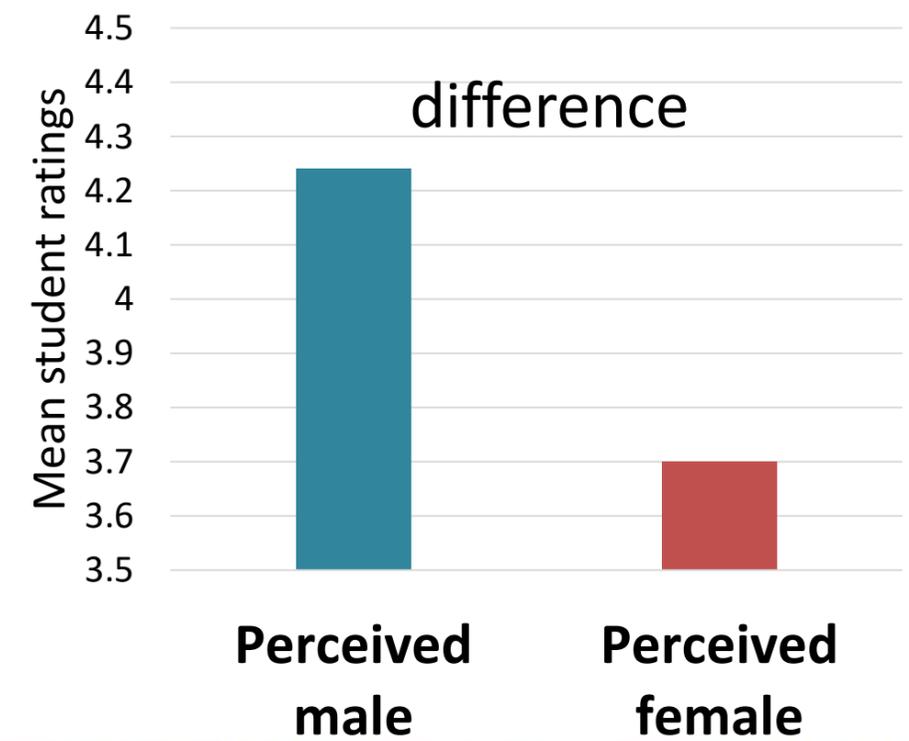


## EXAMPLE 3: Teaching Evaluation

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

	<b>Perceived gender</b>	Woman	Man
<b>Actual gender</b>	Woman	Group A	Group B
	Man	Group C	Group D



## 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)



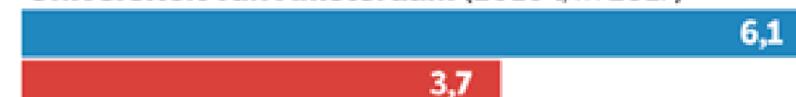
**Open Universiteit** (1987 t/m 2018)



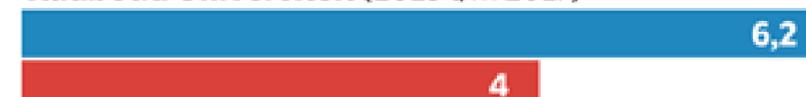
**Rijksuniversiteit Groningen** (2012 t/m 2017)



**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)

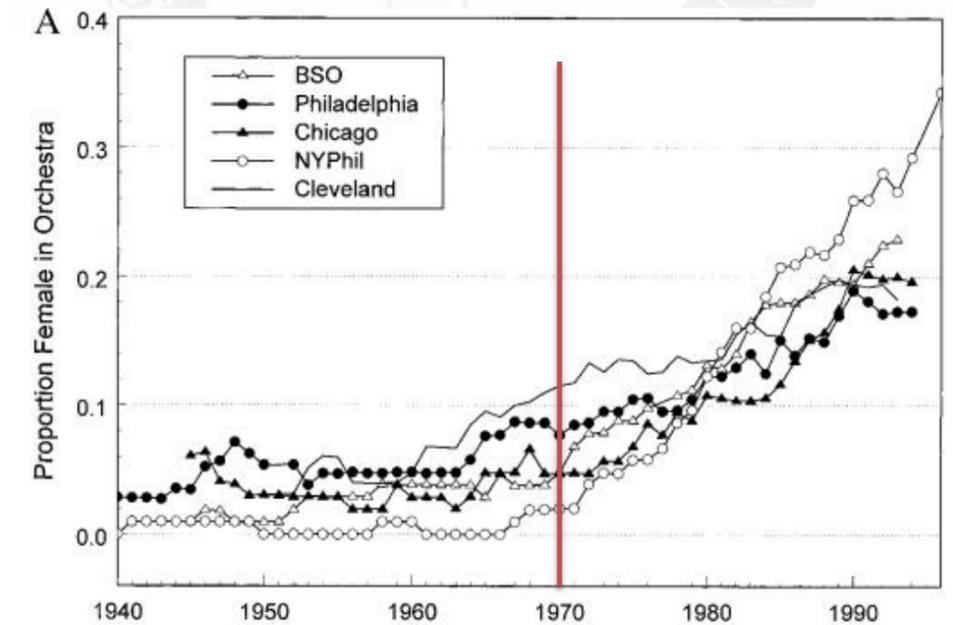


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## What's next? What can you do?

- 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/](http://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?

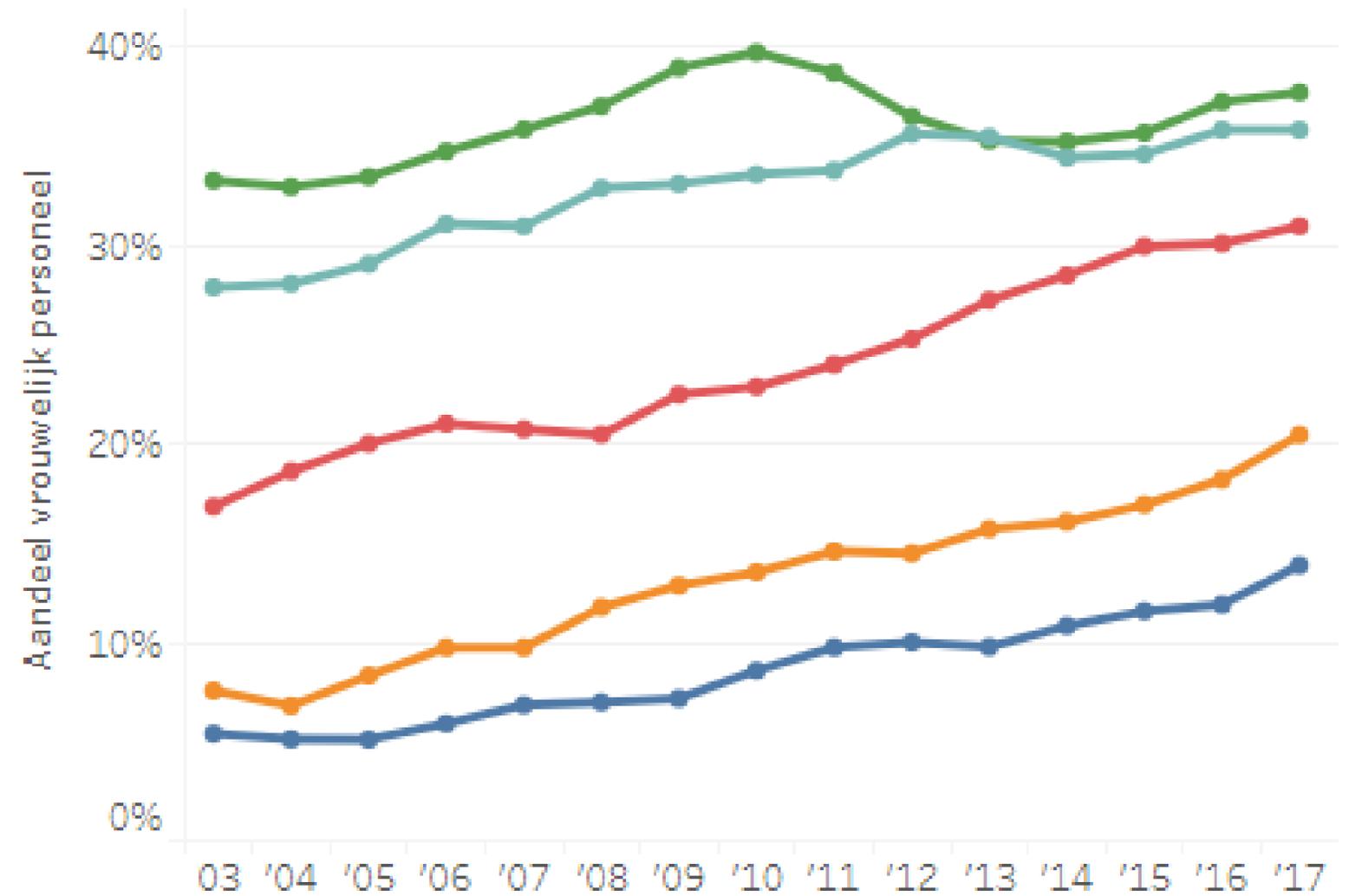
If nothing is done it will stagnate

**Aandeel vrouwelijk wetenschappelijk personeel per functiecategorie**  
*Peildatum 31 december, exclusief HOOP-gebied gezondheid*

Selecteer een universiteit:  Selecteer een sector:

In aantal

- Full professor
- Assistant prof.
- PhD candidates
- Associate prof.
- Other scientific employees



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

