


Gender and Physics in Sweden

A personal review




Some
themes ...

- **Beyond gender** – intersection of gender and social background.
 - **Gender mainstreaming** of higher education.
 - **Systemic work** with ERC-inspired organisation.
 - Gender and STEM **courses** and training.
 - **Unconscious Bias** training and observers.
 - **Engendering** the content of research and teaching.
 - If time – example from Lund.
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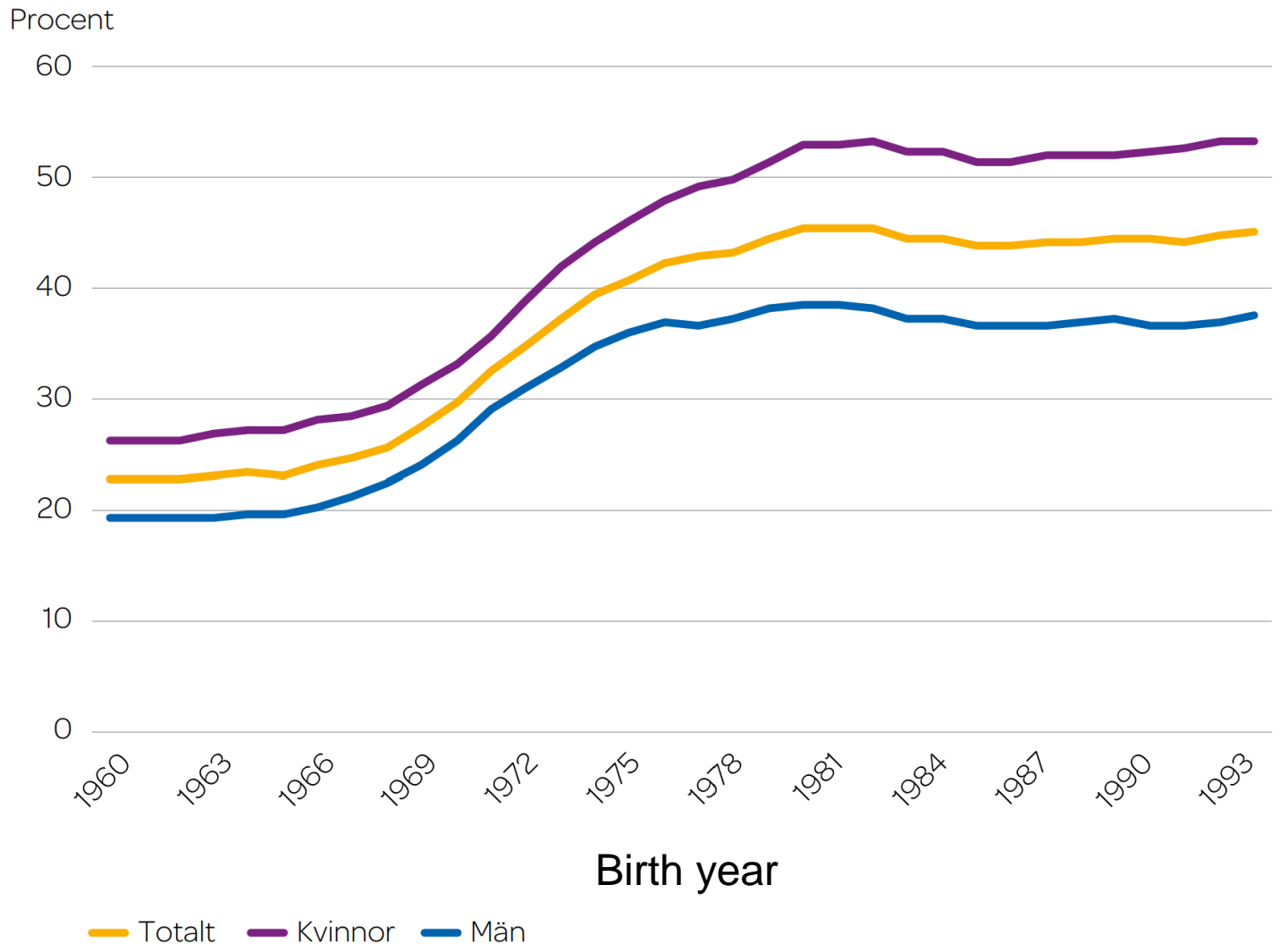
Social and gender segregation of HE

- UKÄ (Swedish Higher Education Authority) [report 2020](https://www.uka.se/sok.html?query=20-0312+Rapport+Social+snedrekrytering+ho%CC%88gskolan+final)
 - <https://www.uka.se/sok.html?query=20-0312+Rapport+Social+snedrekrytering+ho%CC%88gskolan+final>

Questions:

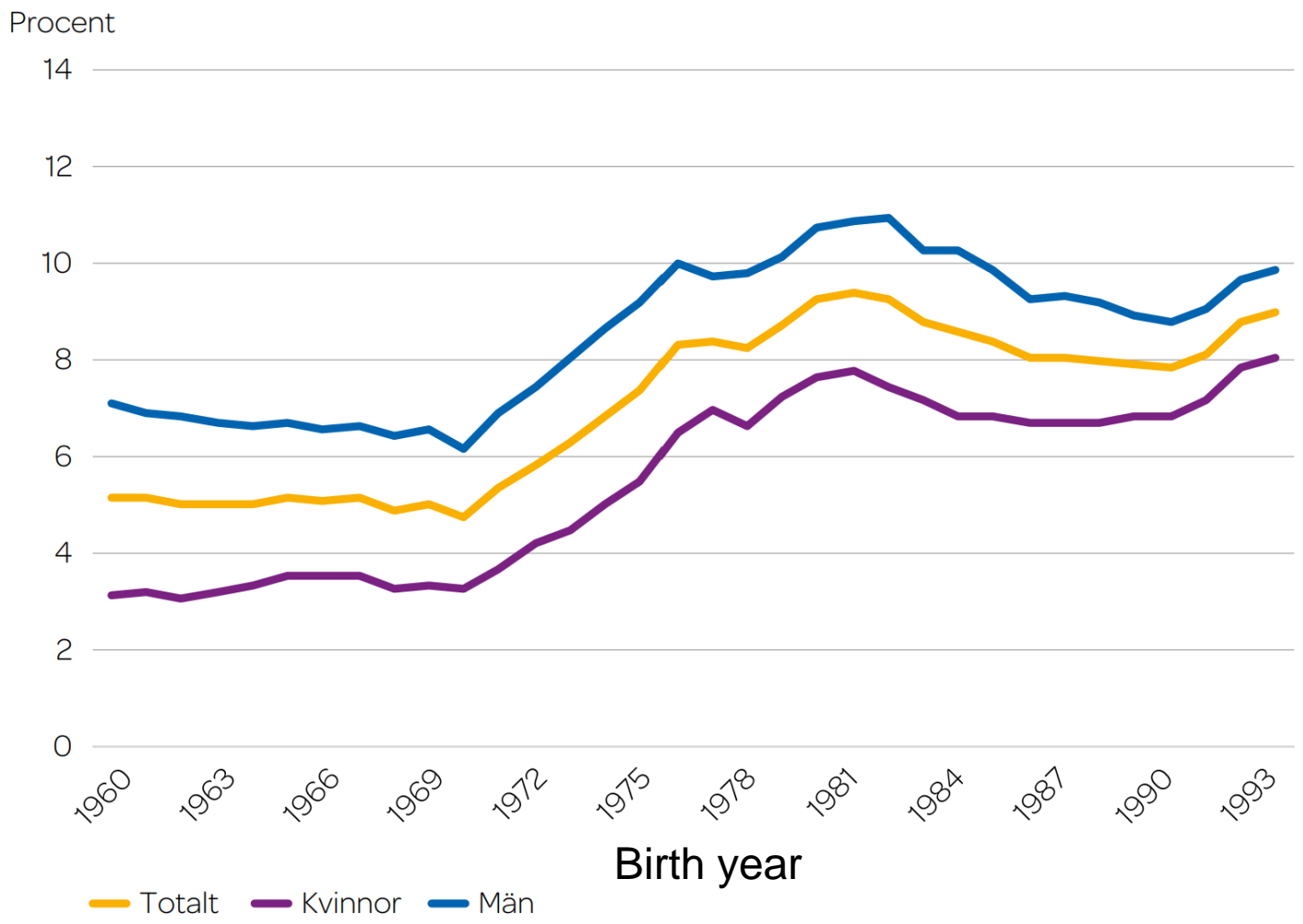
- Did the expansion of HE increase social diversity among students?
 - What are the variations depending on sex/gender, social background, ethnicity with respect to entering HE?
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Started Higher Education at 25 or earlier

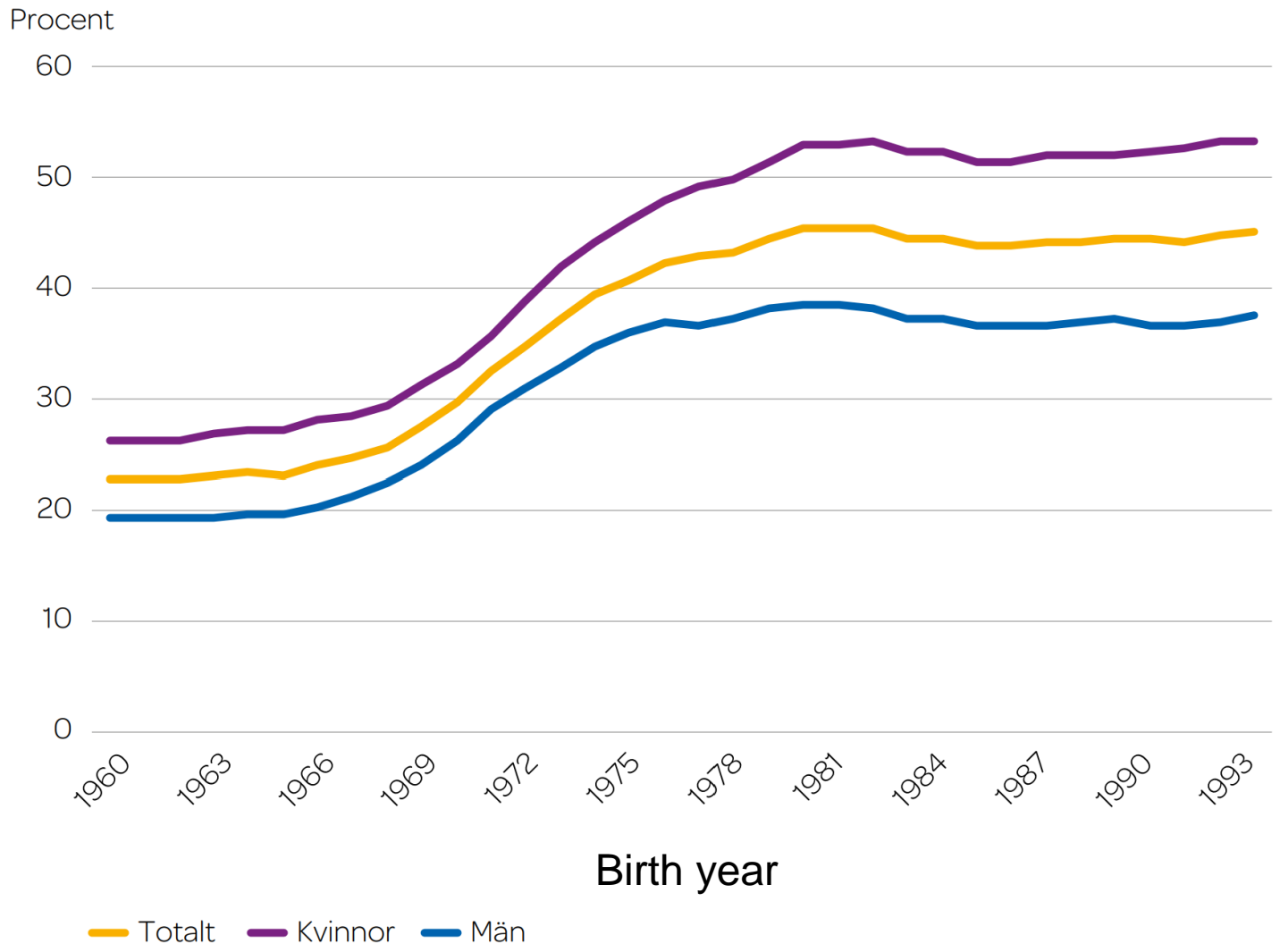


Should we worry about the men?

Started long programs at 25 or earlier

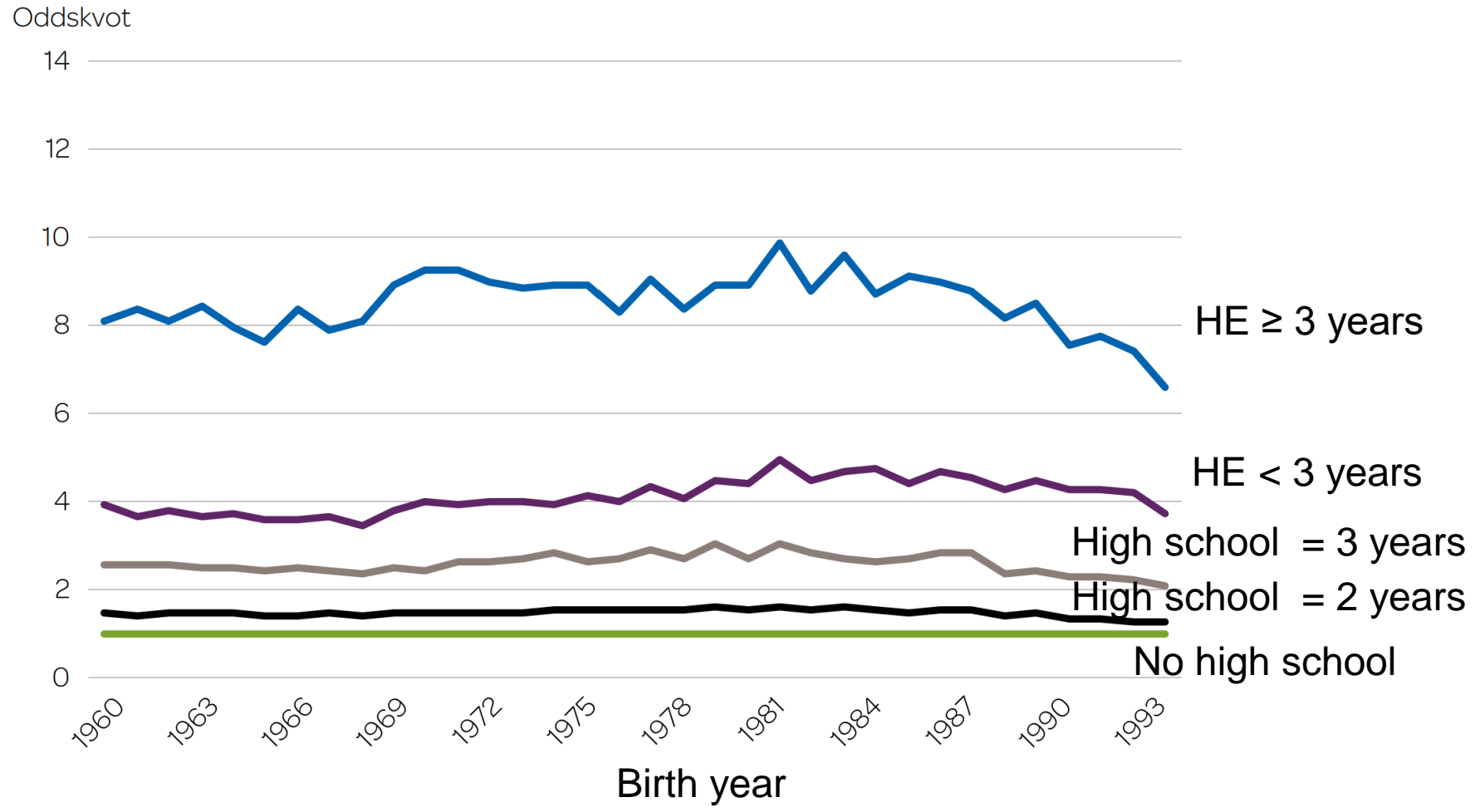


Started Higher Education at 25 or earlier

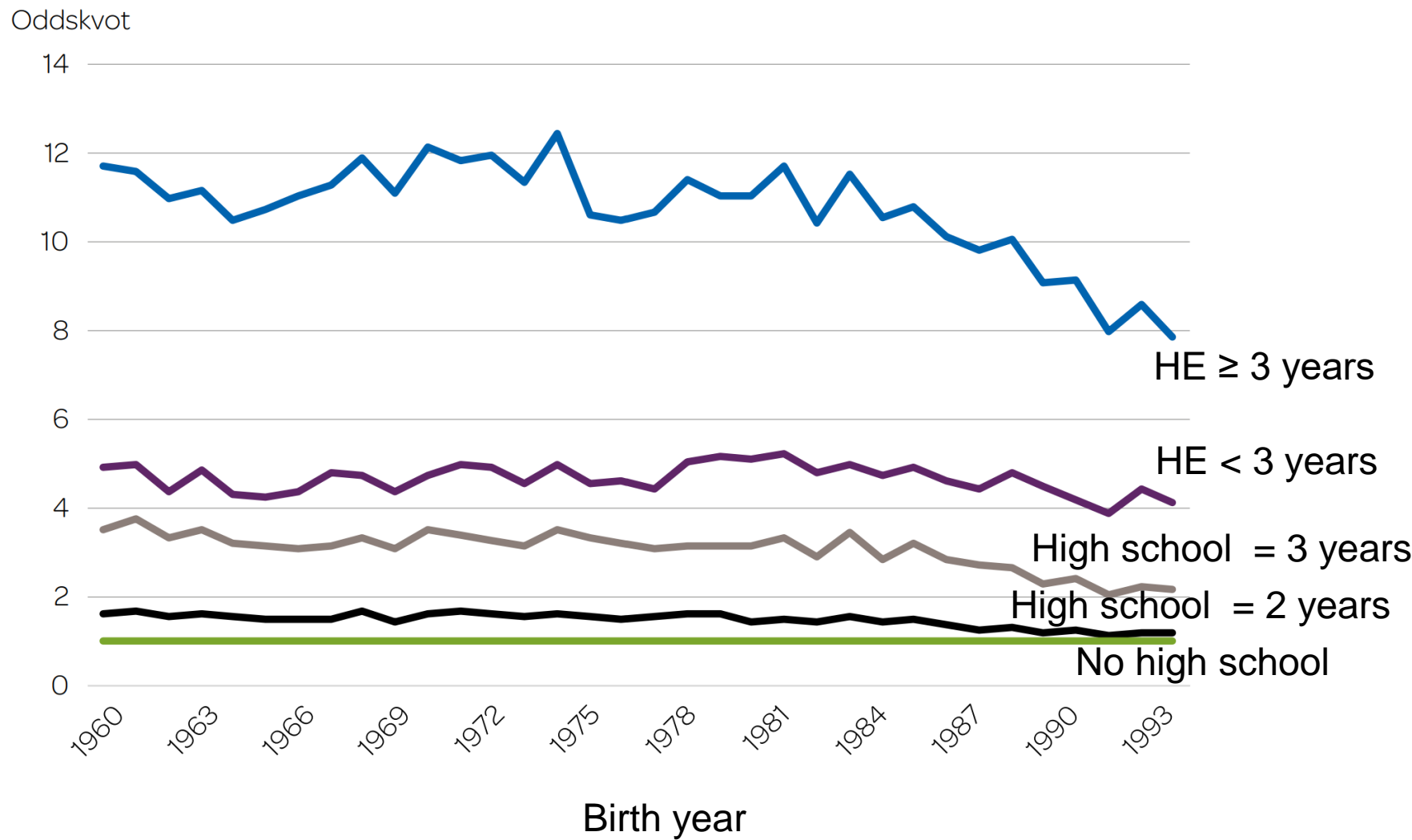


Did this improve social diversity?

Odds for starting education as a function of parents education – women



Odds for starting higher education as a function of parent's education level – men



Social background and high-school grades

Parents education level	High school grades (of 20, with bonus)					
	Under 11	11_13	13_15	15_17	17_19	Over 19
No high school	11%	24%	46%	65%	73%	81%
High school = 2 years	7%	21%	38%	56%	75%	90%
High school = 3 years	11%	27%	44%	64%	78%	89%
HE < 3 years	16%	36%	56%	73%	84%	93%
HE ≥ 3 years	22%	46%	65%	81%	90%	95%
PhD	37%	52%	83%	92%	94%	97%

Does widening recruitment give lower quality?

NO, moves from south-east

to East ... and better students!



Gender
mainstreaming
of HE

Book with editors from Örebro University to be published soon.

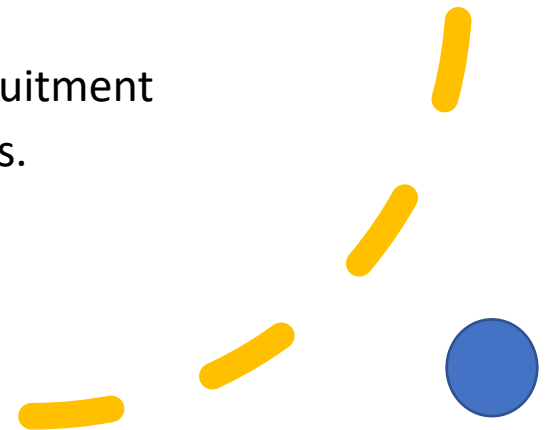
One chapter about Gender Mainstreaming of Physics Education.

Collaboration under GENERA between Irish and Swedish Universities.



Content of chapter on Physics

- Setting the stage:
 - Myths and stereotypes in Physics.
 - Resistance and how to address it.
 - Equality, diversity and academic values.
- Working with the curriculum and engendering Physics.
 - Representation of Physics.
 - Beyond representation – content of curricula and how to avoid essentialism.
 - Epistemology
- Working with the culture of Physics
 - Sense of non-belonging
 - Questions and assessment
 - Towards universal design
- Working with the numbers – gender-sensitive recruitment
 - Towards transformative recruitment programs.
 - Example from Ireland:



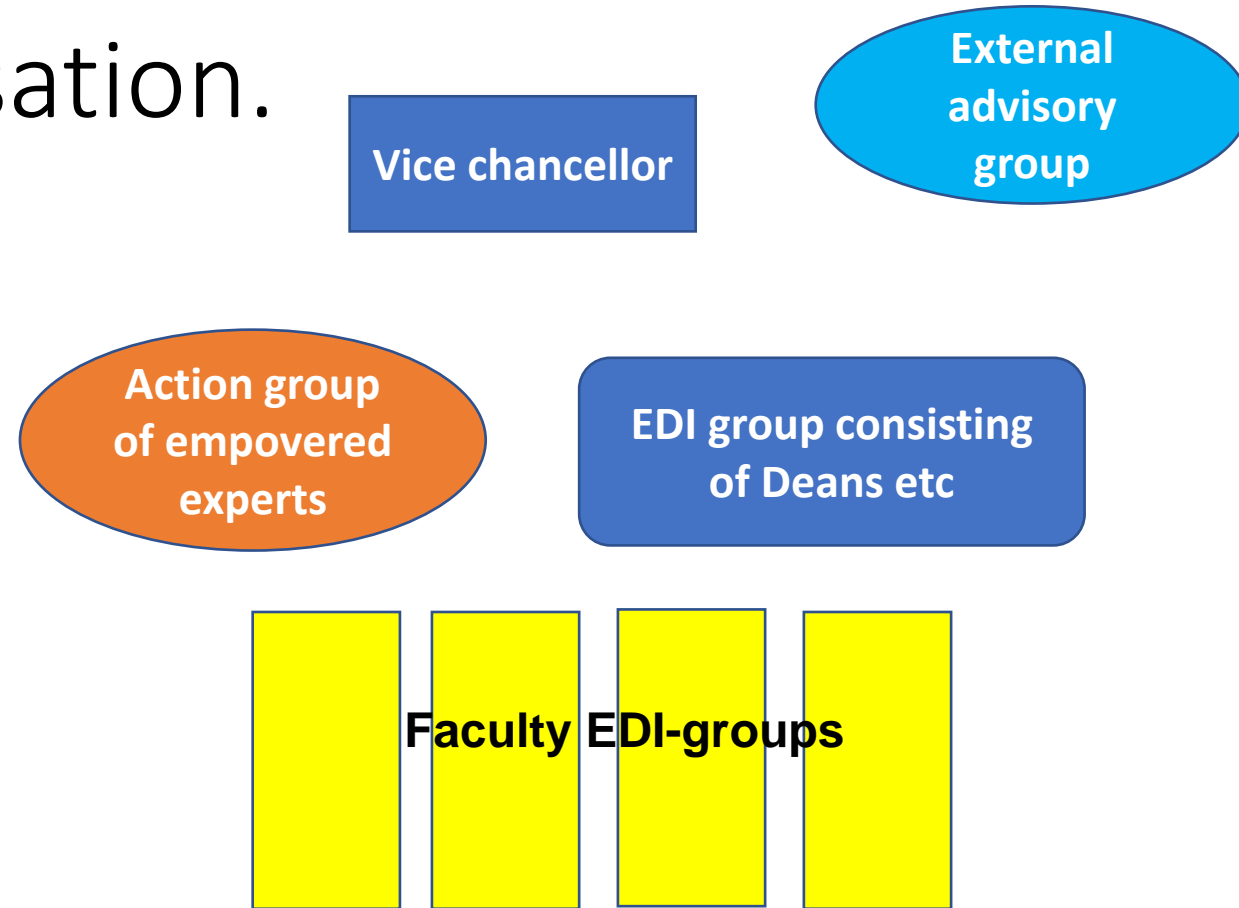
Systemic work – Examples

- GENIE at Chalmers University of Technology
<https://www.chalmers.se/en/about-chalmers/Chalmers-for-a-sustainable-future/initiatives-for-gender-equality/gender-initiative-for-excellence>
- An equal KTH (Royal Institute of Technology)
<https://www.kth.se/en/om/equality>
- Similar system at Lund University Science Faculty



How to build an organisation.

- Leadership and anchoring
- Gender Equality Plans
 - Smart goals
 - Following ERC-recommendations
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- Tool boxes or Necessity bags

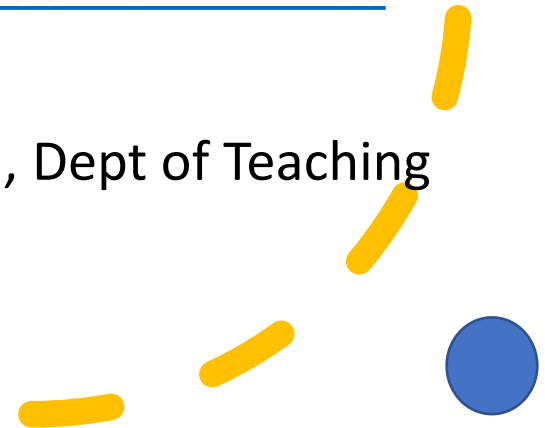


Gender and STEM courses

Courses on Gender and STEM/Physics – Examples:

- Lund University course on Gender in Science and Technology (Students and teachers)
- Stockholm University course on Physics and Gender (Students)
- KTH-course Gender and STEM (Teachers)
- Lund course on Scientific Literacy (Teachers)
- New course: Physics and Gender – Nordforsk supported for all Nordic countries (everybody that can apply!):
<https://www.lunduniversity.lu.se/lubas/i-uoh-lu-MNXB03>

Anna Danielsson head of Science Education, Dept of Teaching and Learning at Stockholm University



Unconscious
Bias

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Awareness
training and
Observers

- Swedish Research Council for over two decades.
 - Wennerås and Wold (1997) “Nepotism and sexism in peer-review”, Nature **387**
 - Introduced gender **equality observers** – regular reports
 - Latest report: <https://www.vr.se/english/just-now/news/news-archive/2020-05-07-does-the-swedish-research-council-have-a-gender-equal-assessment-process.html>
- Uppsala University has a seminar series on “Equal Opportunities and Unconscious Bias” (contact: Karin Schönning)
- Lund University and LERU offers training workshops for observers in career processes (call for online workshops opens soon).

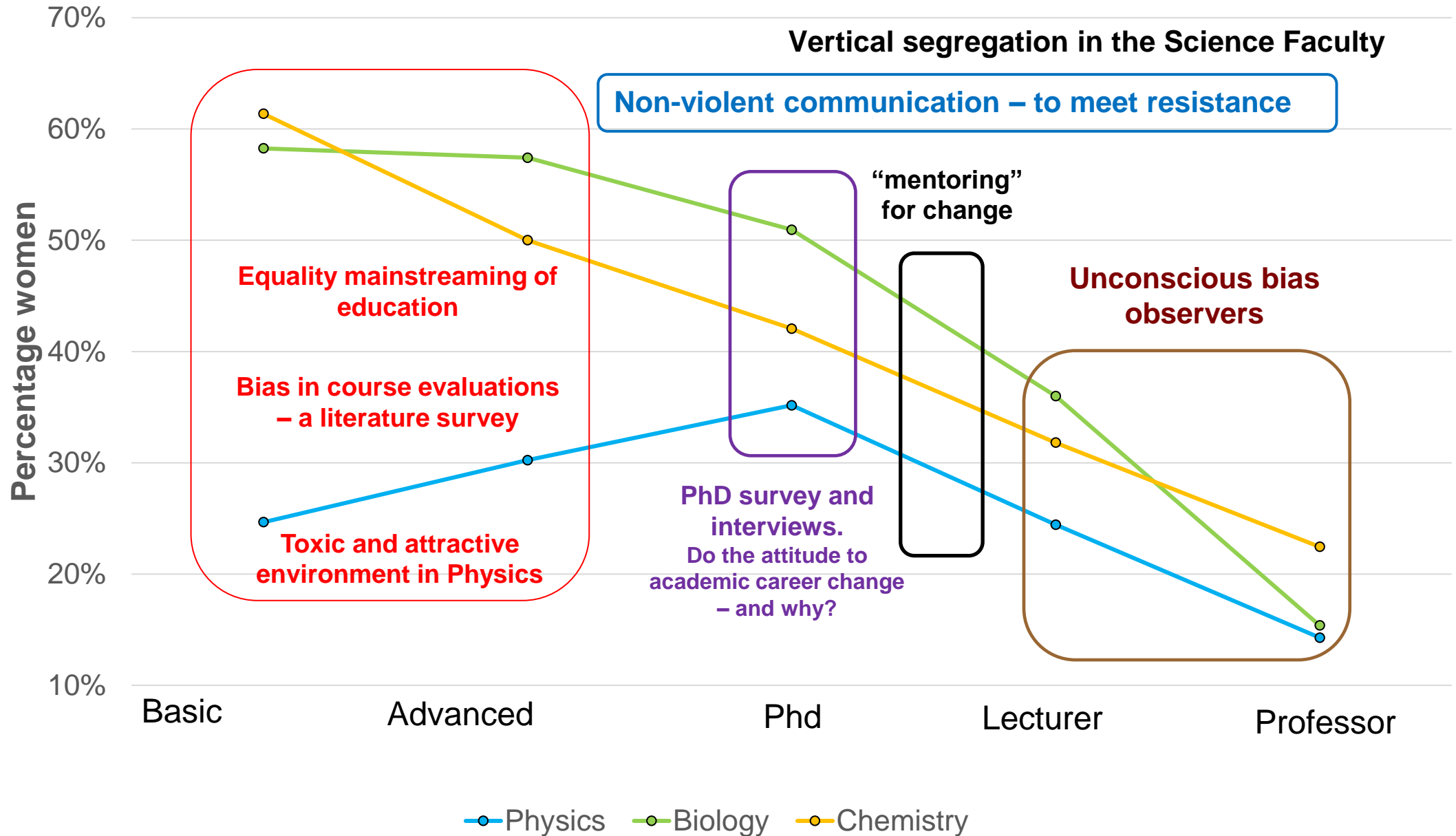


Gender dimension in research and teaching

- Why are Physics so far behind (see Gendered Innovation project)
- [GeDiMIRT – conference](#) (June 2022 addressed this)
- See next talk from Iceland!



Lund projects – all levels of career





Hard times in
Sweden?

Twitter from leading member of the SD-party:

- Welcome to the return journey train. You hold a one-way ticket. Next stop, Kabul

Thank you for your attention!