



Faculty of Science



University recruitment and careers in the Nordic Countries

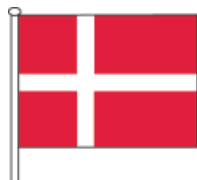
Birgitta Nordström
Niels Bohr Institute
Copenhagen University

Vienna 11 Nov 2011



Overview

- Growth in higher education
- Who are the new students?
- Financial support
- Why invest?
- Job market



Inhabitants (million)

Sweden 9.0

(Austria 8.2)

Denmark 5.4

Finland 5.2

Norway 4.6

Iceland 0.3

Total Nordic countries: 24.5



NO



DK



FI



SE



Growth in higher education

New Universities:

Many new universities have been created. Several are upgrades of existing schools of higher education.

Too many Universities?

More students:

Number of University educated people has grown enormously in the Nordic countries.

Example:

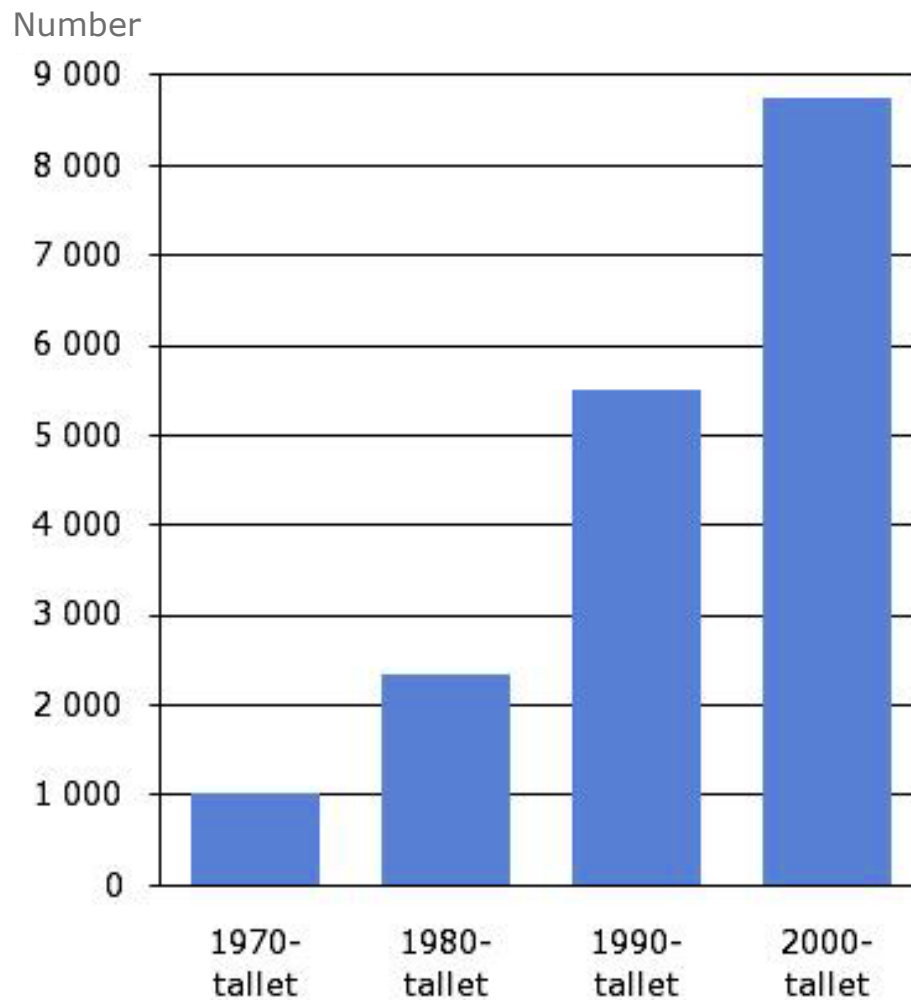
In Norway 30 % of the population has at least a Bachelor degree.

In Sweden 240,000 students were admitted to university in august 2010. = 2.7% of the population.

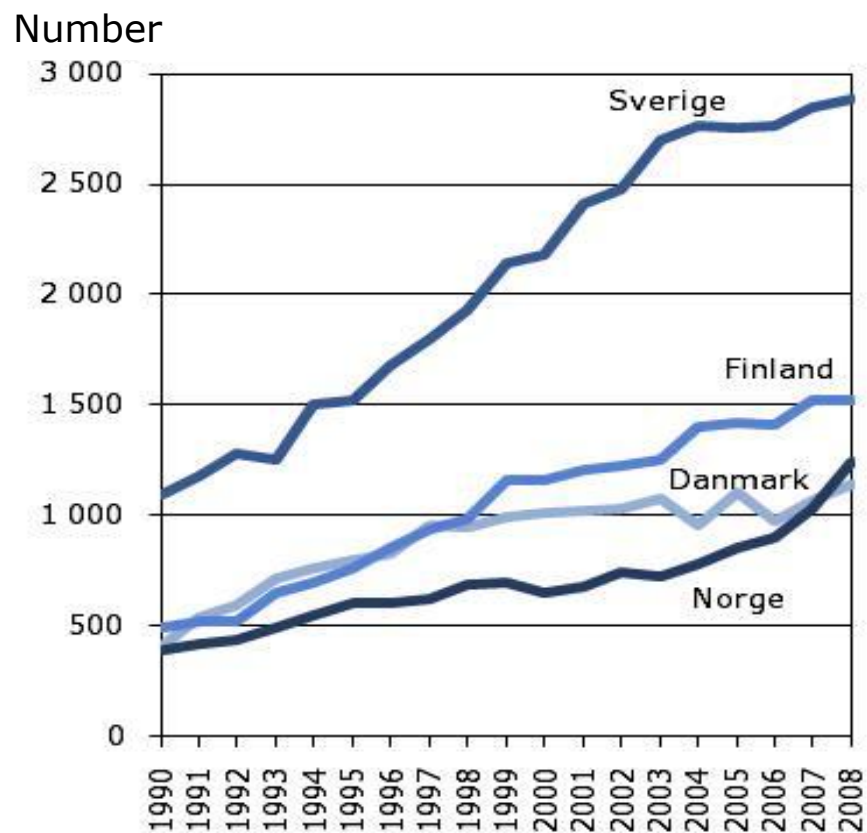




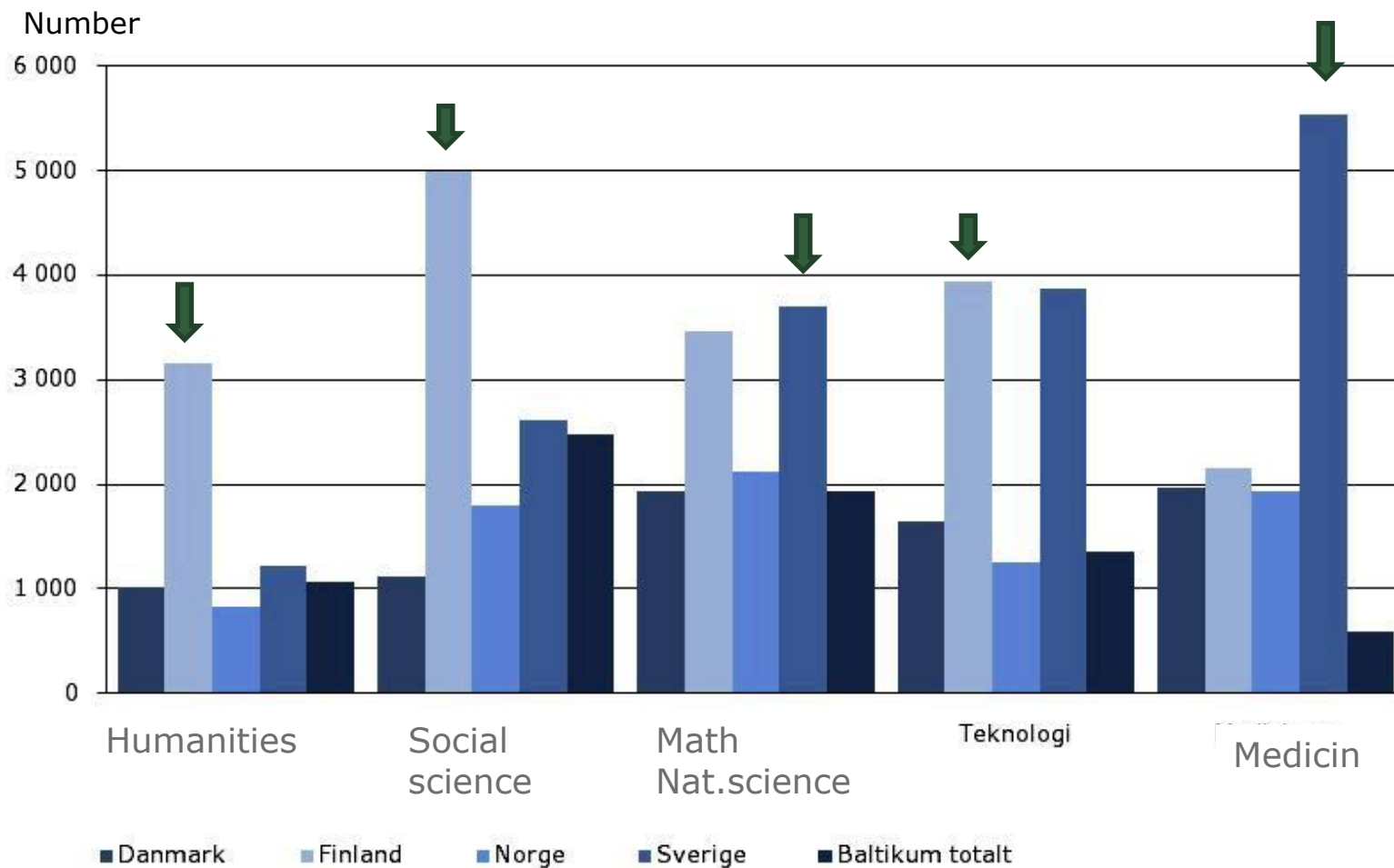
Norway doctoral degrees - growth



Doctoral degrees in Nordic countries 1990–2008.



PhD students in Nordic-Baltic countries

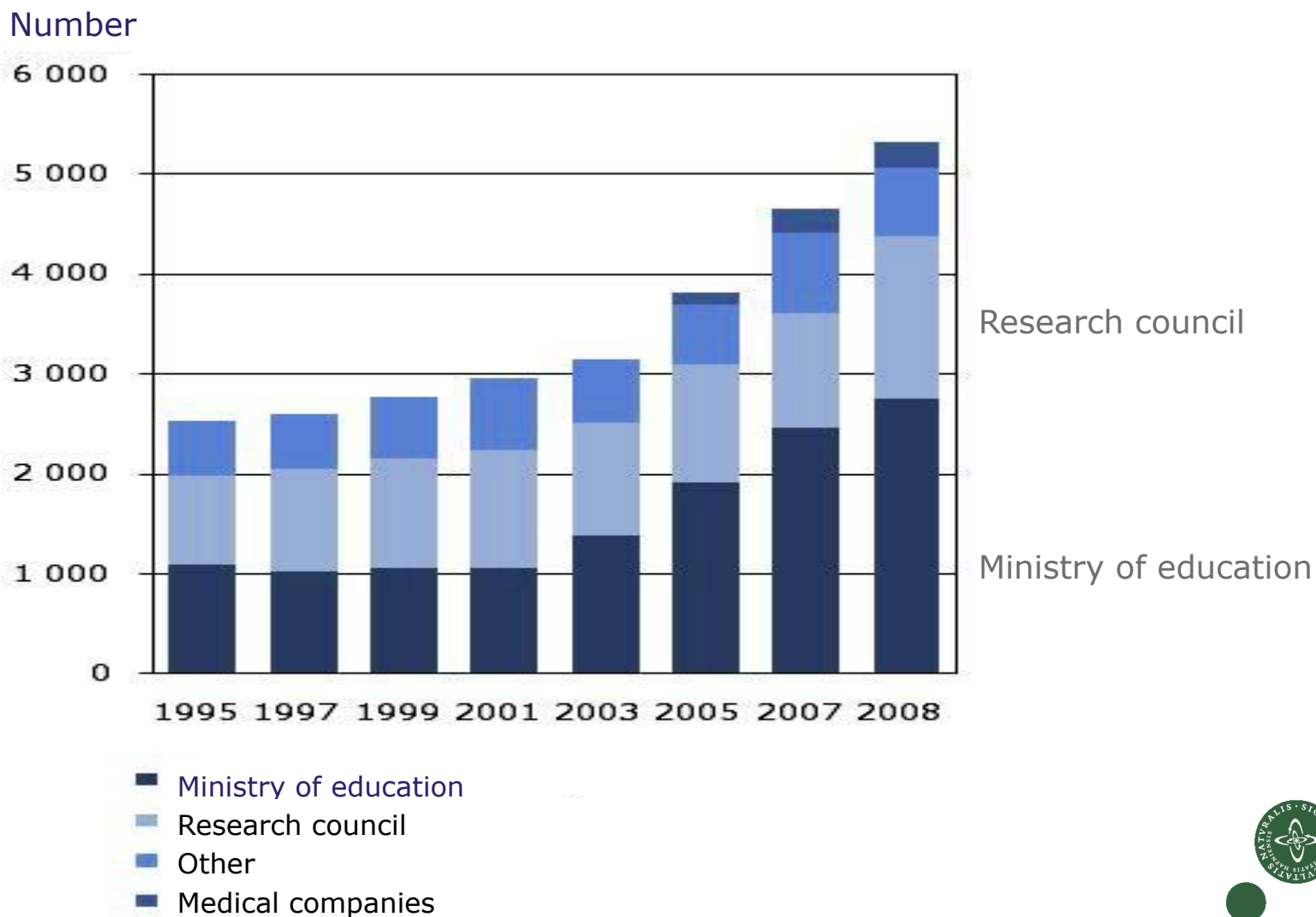


Source: NIFU STEP/NORBAL



University education in Norway

Financing the growing number of PhD stipends



Who are the new students?

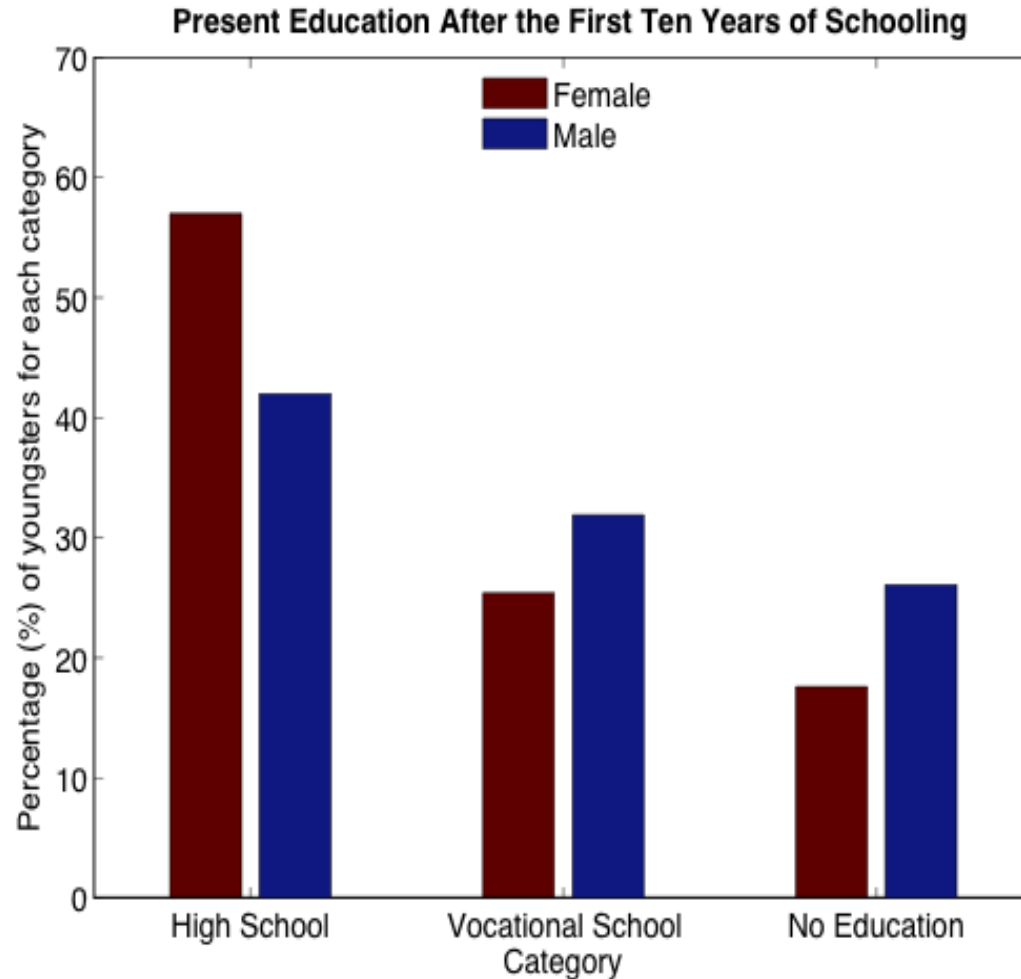
- More Women (now more than 55 % in Norway, 2007)
- More Students than before from other social classes
(universities not only for the elite)
- More Foreigners (in Norway 25% PhD students in 2008)



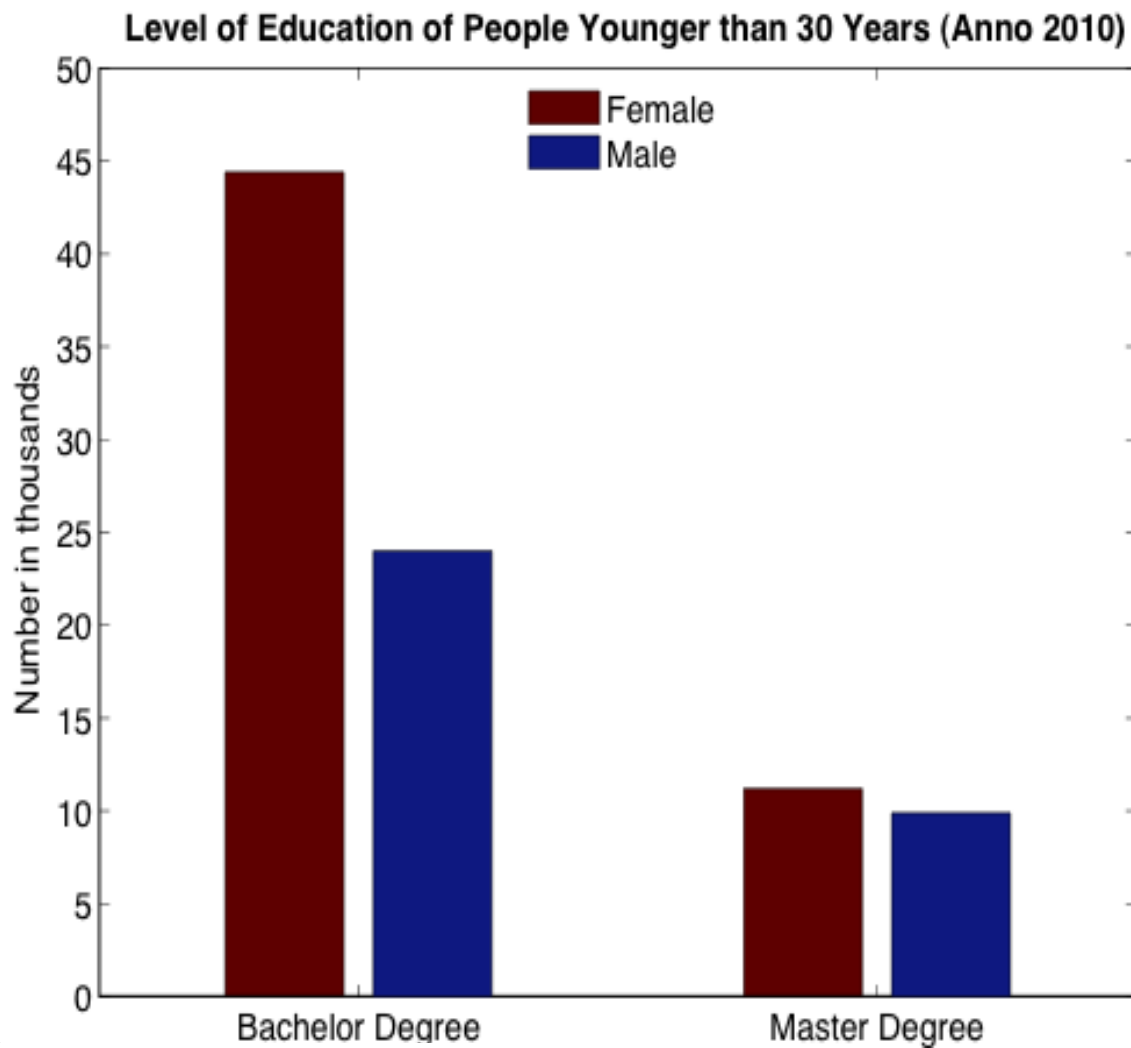


Education after grade 9/10

Women take the more academic education



Educational level of people < 30 yr



Gender distribution in Sweden



Graduate Students

2010:

17 693 Graduate students: 49 % women

2416 in Natural Sciences: 47 % women

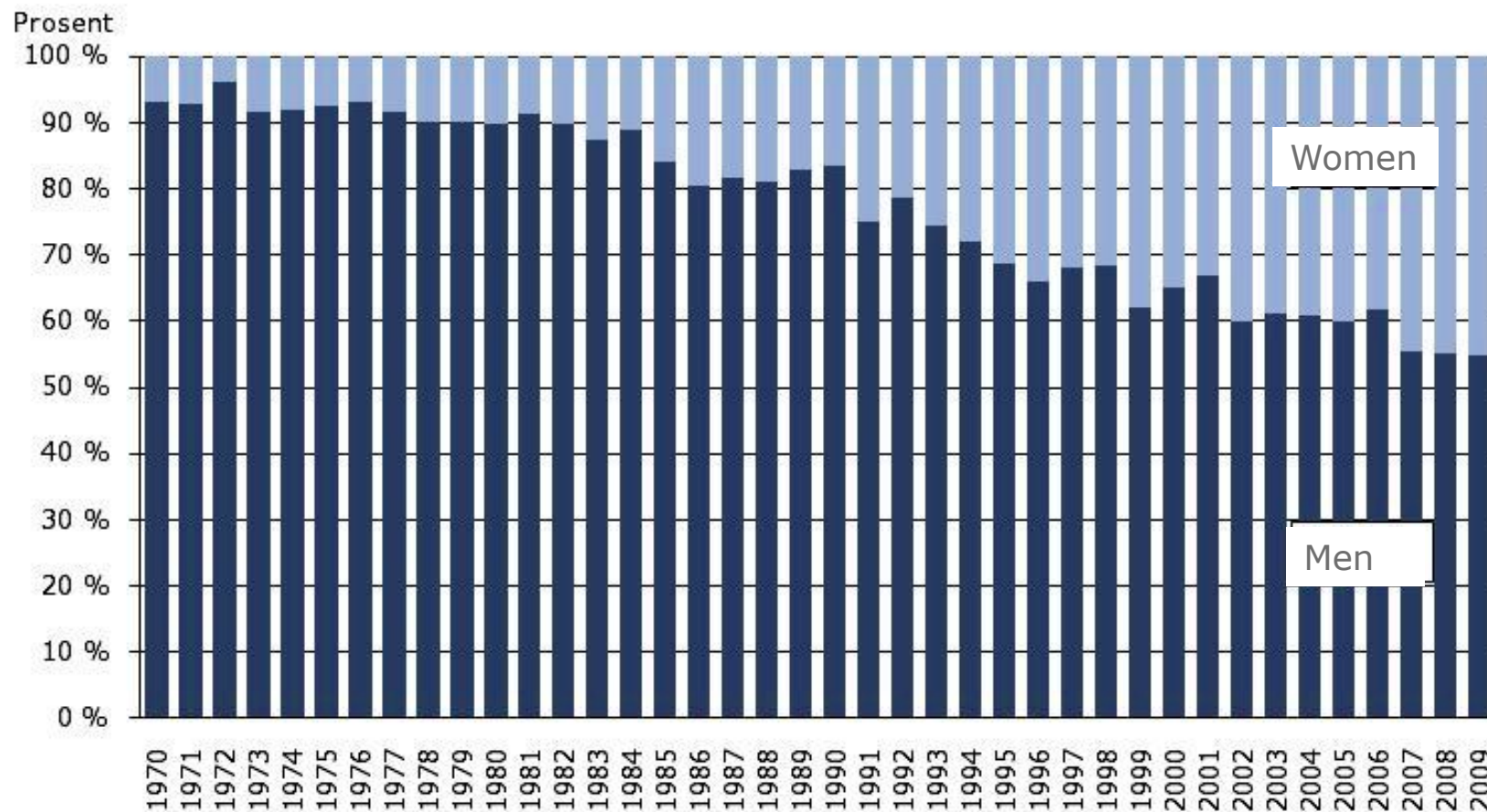
4712 in Technological Sciences: 29 % women

331 in Mathematics: 26 % women



PhD degrees Norway 1970-2009

Men - Women



Ref: NIFU STEP/Doktorgradsregisteret



Why invest in higher education?

Fewer natural resources (oil, Norway) => need for more highly educated people



- Need for highly educated people for Innovation and development
- Competition with cheap labour in developing countries
- Many new functions - need for more skilled people



Why invest in higher education?

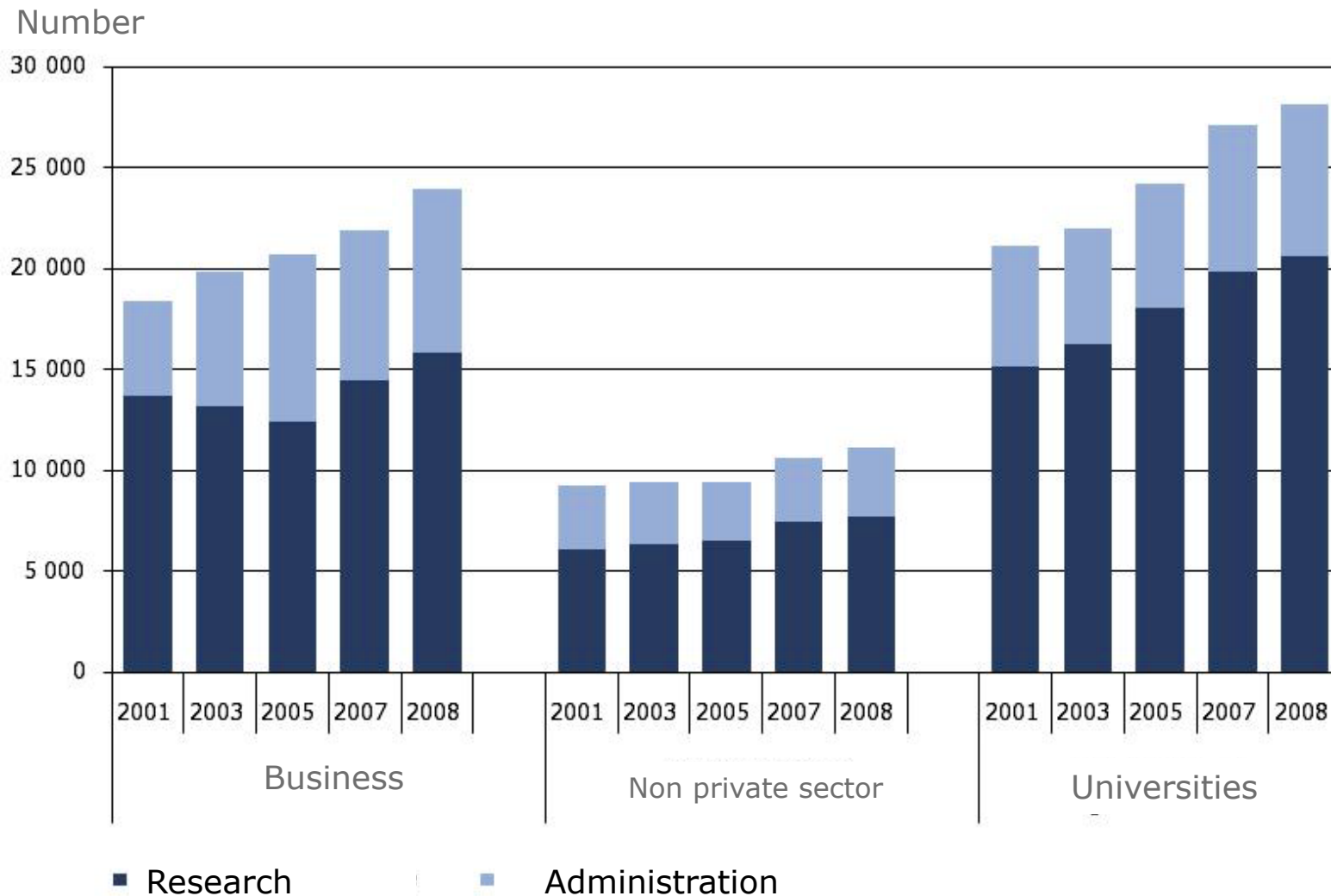
Higher education gives:

- knowledge and skills in relevant areas for jobs
- ability to make independent and critical assessments
- ability to identify, formulate and solve problems





Employment of Univ. educated people



Recruitment

Attract and keep the best students including women and foreigners (tax advantage in DK).

Better Funding for MsC students (DK reasonably good)

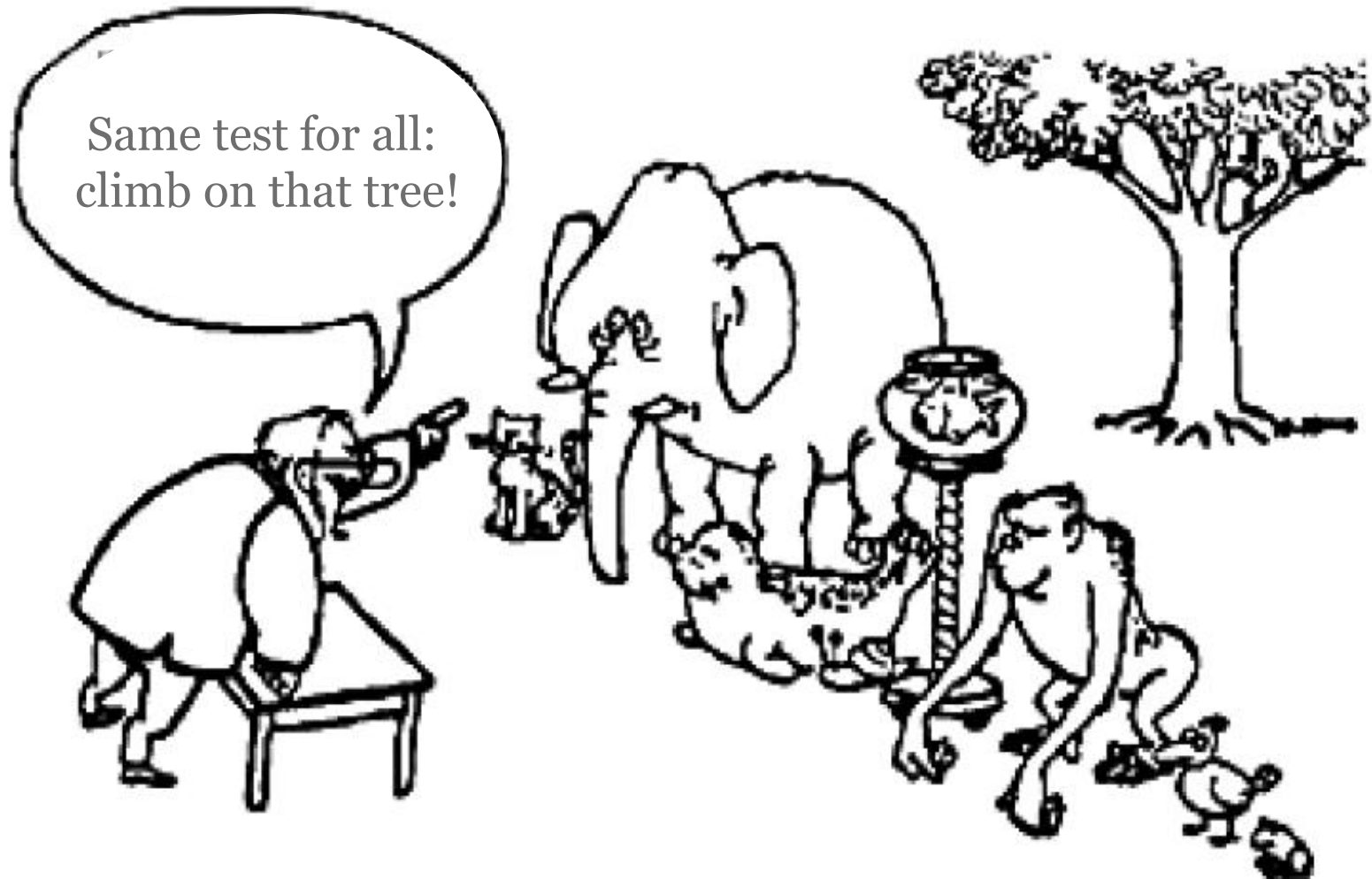
Better Funding for PhD students (DK reasonably good)

Shorten time for education

Prevent "Brain drain" to countries abroad



Select the best students





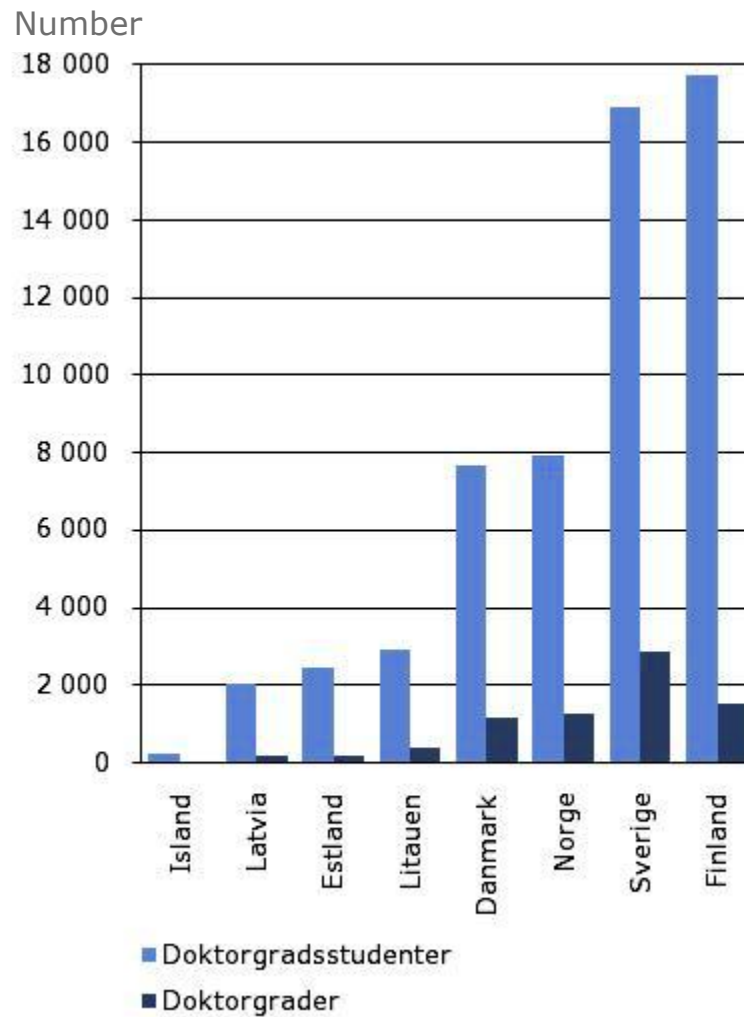
Recruitment of women to academic positions Norway



Measures taken:

- Modest financial rewards to institutes employing women in permanent positions – Probably not so effective
- Ph.d. scholarships for women as well as mentoring programs
- Important measure : Program to help women qualify for the highest academic position (professor). Women assistant professors can be granted additional sabbatical leave to allow them to qualify for a full professor position.
- Most effective: Targeted recruitment of women to academic positions – depends on the head of department.

Doctoral students and degrees in all Nordic countries

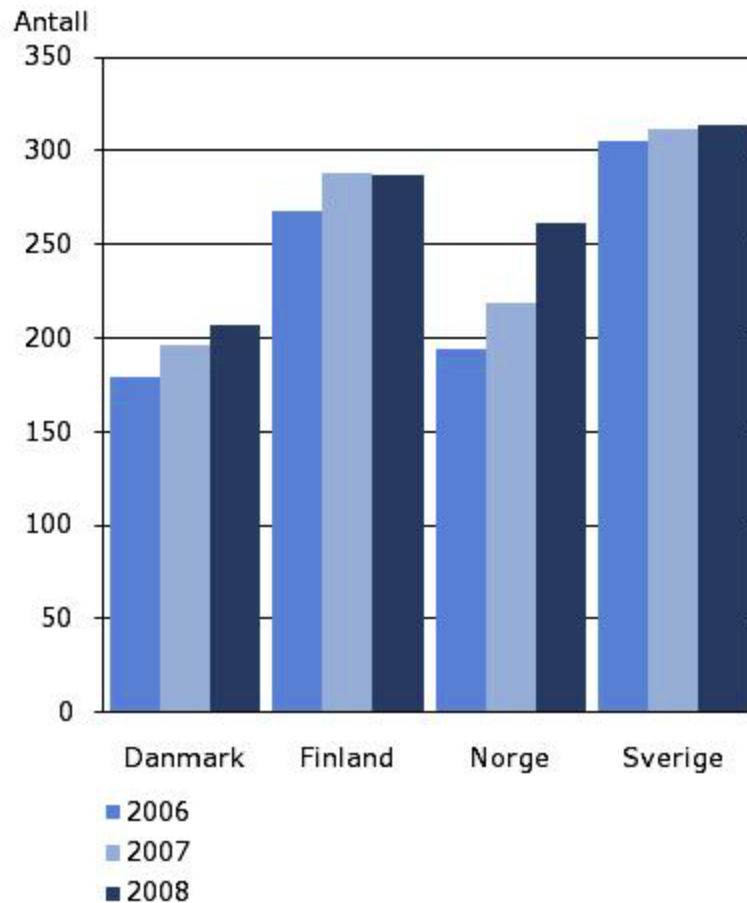


Shorten duration of studies.
DK shortest.





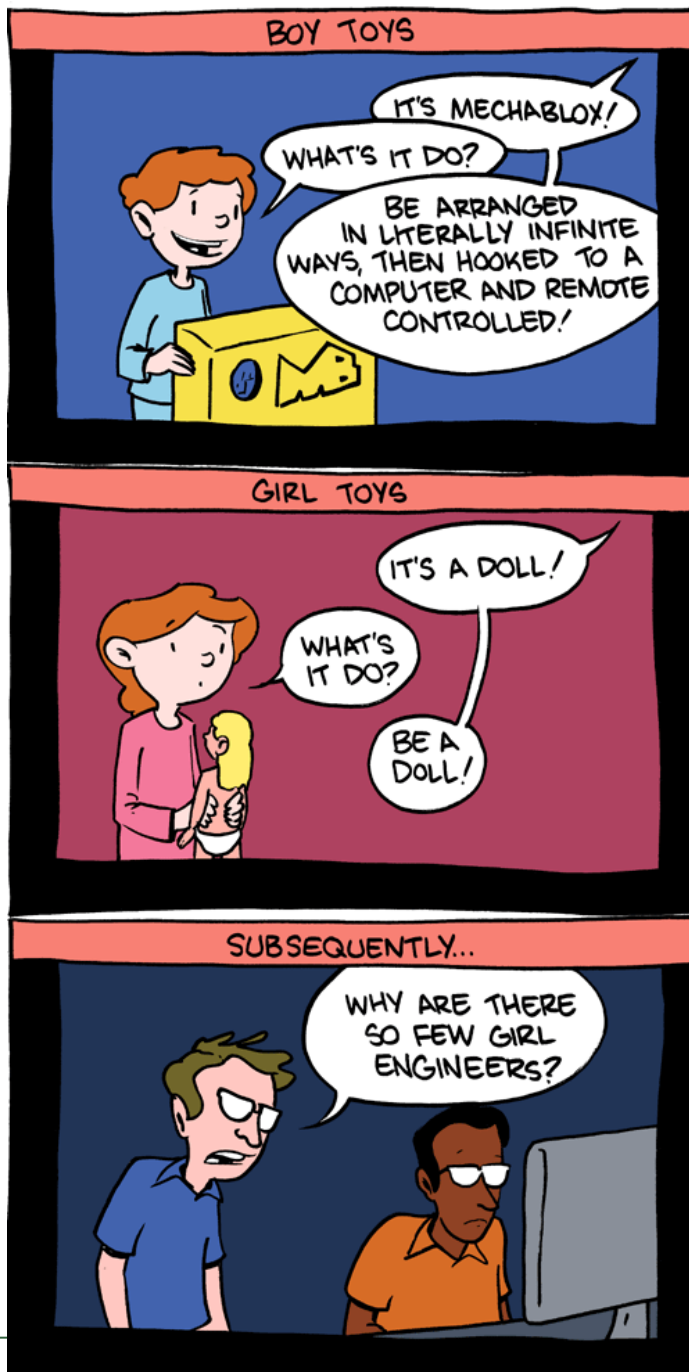
Nordic countries



Doctoral degrees per 1000 citizens



Recruitment starts early.



Recruitment is important



PROBLEME MIT FRAUEN IN DER PHYSIK?
WIR HABEN KEINE ...

