



# Women in Science: The Way Forward

9-11 May 2007  
The Operon, EMBL,  
Heidelberg, Germany  
(EMBO, EMBL, and CERN)

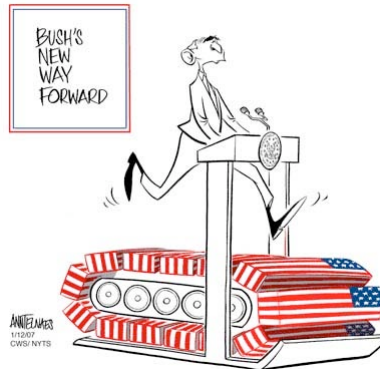
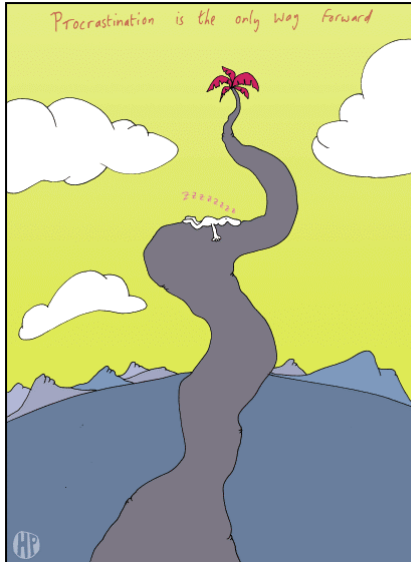


Thursday 10th May 2007, 15.45-16.15

## What politics can --- and cannot --- do!

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HAROLD'S PLANET by Swerling and Lazar



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## Outline

Women in Science, includes women in:

- Academia, institute sector, private and public sectors
  
- Background: Personal experience
- Looking back to find the way forward
  - What has politics done?
    - Nationally and in academia
  - Some consequences and remaining challenges
- What can - or should - be done, and by whom?

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## Are scientists "special"???



Compared to other professionals?

- Maybe...?
  
- ..but as likely to have partners, children, elderly relatives and other dependents

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## Why this focus on women?

Underrepresentation  
Democracy  
Diversity  
Talents  
Quality  
Open, critical debate  
Etc.

Not why –  
but how!

Therefore also  
a political  
question!

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## Personal experience

- 1960s: Housewife; young mother of two children
  - "Golden Age" for housewives
- 1969-82: USA (1 yr in Sweden). Single mother. Studies, research, Asst.Prof., Visiting researcher
  - Very male dominated areas
- Fall 1982- now: Norwegian industry
  - 1985: First woman at Vice President level in Norsk Hydro
  - 60-70 appointments on committees, commissions, boards
  - "Cost": Did not advance further in the hierarchy
  - But ....personal choice!!!

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## Norway: Looking back

- 1950s and 1960s: Traditional view of family, "man in paid work, woman at home"
- 1970: Less than 2% of children in day care institutions
- 1970s:
  - Women increasingly into higher education and *paid work*
  - Children a conscious, intentional choice
  - Families *in need of family policies* (politics)
  - Offshore oil and gas → rich nation
- 1980s: Legislation, infrastructure (Gro Harlem Brundtland Prime Minister)
- 1990s: Awareness of unintended (negative?) consequences
- 2000 →: Impatience, dilemmas: "Have your cake and eat it"

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## Paid maternity and paternity leave (weeks)

	NO	FI	SE	DK	IS
Maternity leave intro.	1956	1964	1955	1960	1946
Length same yr.	10	14	12	14	14
Length 2007	42/52	?	?	?	?
Paternity leave intro.	1977	1978	1980	1984	1998
Length same yr.	2	2	2	2	2
Length 2007	6	?	?	?	?

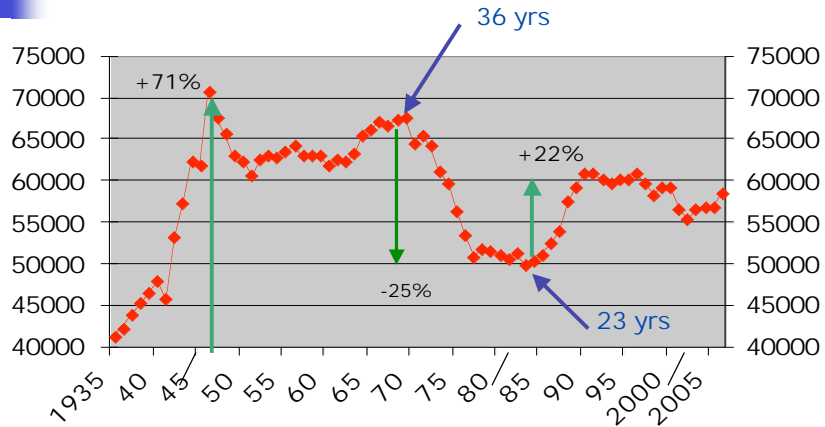
Note: Conditions vary across time and space.

Source: Anita Haataja, Parental leave in the Nordic countries (translated from Finnish to Swedish by Maria Grönroos) Janus, vol.12 (1), 2004, pp.25-48

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## Live Births: Norway (1935-2006)



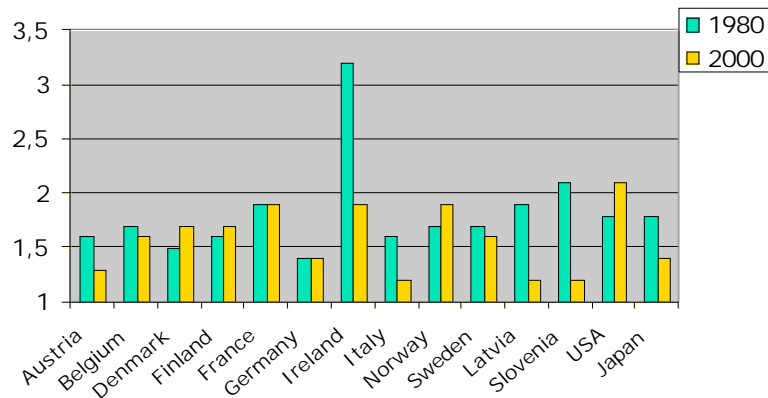
Source: SSB, Historisk Statistikk

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## Fruktbarhetsrater

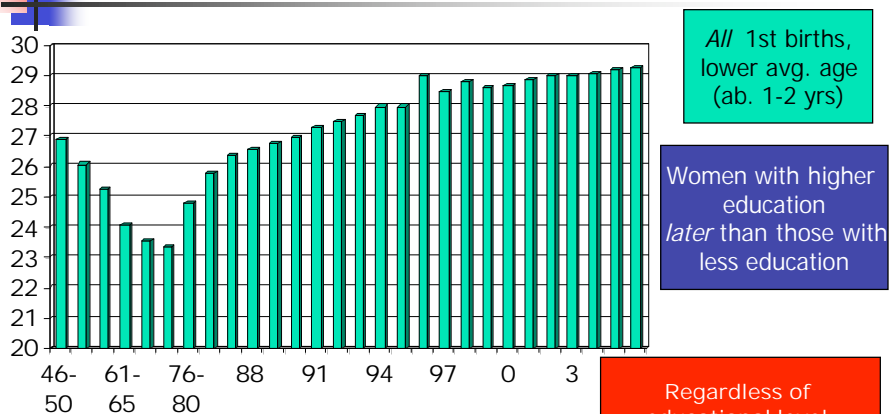
Source: <http://devdata.worldbank.org/genderstats/rhealth.pdf>



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## Norway: Average age 1st birth; in wedlock 1946-2005



All 1st births,  
lower avg. age  
(ab. 1-2 yrs)

Women with higher  
education  
*later* than those with  
less education

Regardless of  
educational level,  
total number of children  
about the same.

Variations depending on *field*  
of higher education

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## Norway: What has politics done?

- National Insurance Act (1966, last change 2007): Parental and adoption benefits
  - 52 weeks with 80% pay or 42 weeks with 100% pay + right to one additional year unpaid leave
  - Paternity quota: Six weeks reserved for the father, or it is lost
  - Parents allowance/child benefit (financial support)
  - Pension points for persons with care of small children
- Work Environment Act (2005): Leave of absence with pay if the child is sick
  - Each parent up to 10 days/year (one child)
  - Each parent up to 15 days/year (more than one child)

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## Quotas: Norway (1)

Law of Equality of 1978. Last revision in 2005, Par 21:

- When a public body appoints or elects commissions, committees, juries, boards, advisory boards, etc both genders shall be represented as follows:
  - Two or three members: Both genders represented
  - Four or five members: Each gender at least two
  - Six to eight members: Each gender at least three
  - Nine members: Each gender at least four
  - More than nine: Min. 40% of each gender
- Exceptions if special conditions make this impossible to fulfill
- Local laws apply for local commissions, committees, etc

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## Norway: Quotas (2)

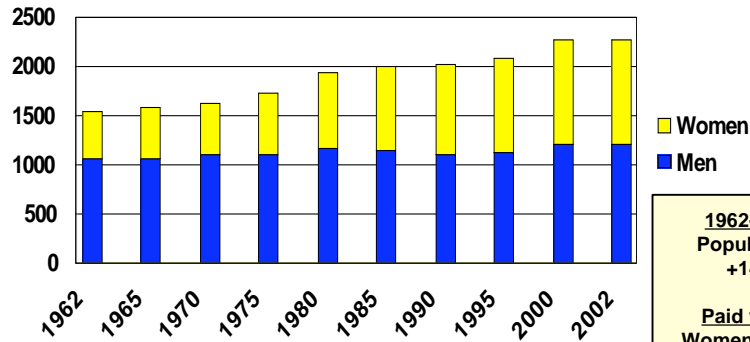


- Political parties/government (all levels):
  - Goal min. 40% each gender (explicit or implicit)
  - Current Cabinet: 8/18 are women (44%)
- From Jan. 1, 2004: Boards of all state owned companies are obliged to have a min. of 40% representation of each gender
- Law of Jan. 1, 2006: Min. 40% representation of each gender on boards of companies registered on the stock exchange.
- .....contagious?

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## Norway: Number in *paid* employment (‘000)



<http://www.ssb.no/emner/06/01/yrkeaku/tab-2003-03-26-08.html>

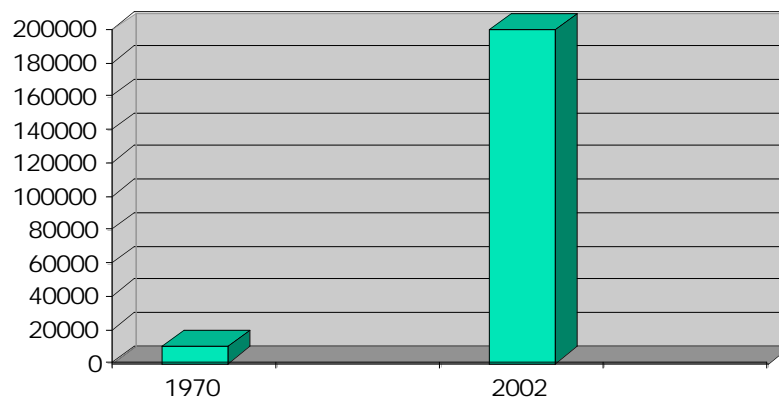
**1962-1992**  
Population:  
+14%

**Paid work:**  
Women: + 87%  
Men: + 4%

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## Norway: Child care centers/kindergarten Number of children



Source: Statistisk Årbok 2005, tabell 179

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## Women's entry into *paid* work

- Profound change (for men and women)
  - Dual careers ("careers in conflict")
  - Time squeeze (dual work)
  - Problems balancing work/family/leisuretime/community participation
  - Family as an institution changed

Changes that both society and the work place must take into account!



## A paradigmatic change

- Women's production (partly) moved out of the private sphere
  - Production of goods to industry, increased value added
  - Production of services (care of children, elderly, ill) to the public sector
  - Increased consumer trade/commerce
- Changed organization, professionalization, specialization and increased visibility of women's traditionally unpaid work
- Redistribution of costs
  - From household budgets to increased taxes



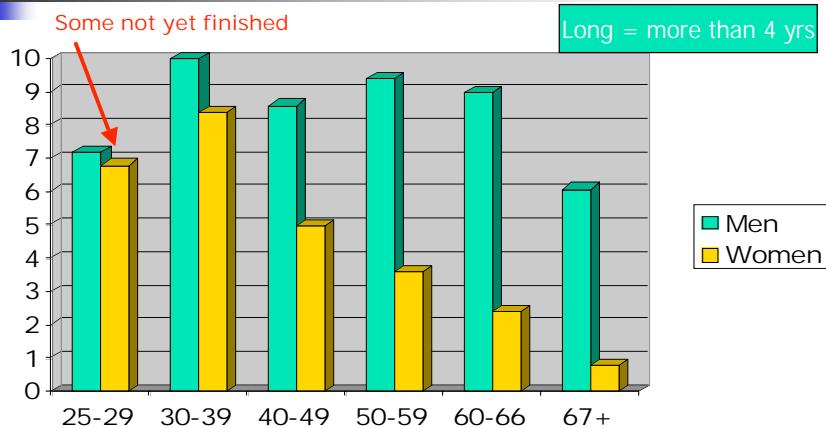
## How to lie with statistics....

- A significant part of the registered growth in GNP and in employment figures during the last 30-40 years is fictitious, because:
  - Women's contribution to value added is now to a much larger degree:
    - Registered as employment,
    - paid.. and therefore
    - included in GNP

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## Norway: Completed (long) Higher Education (As of Oct. 1, 2005, age groups, %)



<http://www.ssb.no/emner/04/01/utniv/tab-2006-09-14-03.html>

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## Terminology

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- Quotas
  - Radical use (discrimination; not allowed)
    - Favor the underrepresented gender even if less qualified
  - Moderate use (allowed)
    - Several candidates with "equal qualifications" → can favor the underrepresented gender
- Earmarking
  - Reserve a certain number of academic permanent or temporary positions exclusively for women
  - EFTA Court 24.2.03: "...Norway failed to fulfil its obligations under Articles 7 and 70 of the EEA Agreement"
  - Hence, not allowed...but the decision also stated....

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## EFTA Court Decision

24.1.03, sec.57

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- ...the criteria for assessing the qualifications of candidates are essential...
- ...there appears to be scope for considering those factor, that, on empirical experience, tend to place female candidates in a disadvantaged position in comparison with male candidates...
- ..giving weight to the possibility that in numerous academic disciplines female life experience may be relevant to determination of the suitability and capability for, and performance in, higher academic positions....

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## Norway: University of Oslo

- Moderate use of quotas:
  - If three final candidates "of equal quality" for a position, can favor the underrepresented gender
- Special rights and rules regarding actions that protect women in case of pregnancy, delivery, and nursing
- Action plan (2007-2009) for recruitment of women at all levels (35% Prof; 25% Prof II; etc.)
  - Ambitious ... but reachable?
- Goal 2011: "A university where both genders are treated equally and have equal opportunities"

Sources: 1. Kjønnbalanse i akademien – gyldne muligheter, Sluttrapport fra Komite for integreringstiltak – kvinner i forskning 2004-2006, 8.2.07  
2. Law of Equality (Likestillingsloven), par. 3a; 3. Equality Advisor, UiO, 4.5.07

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## Some remaining challenges

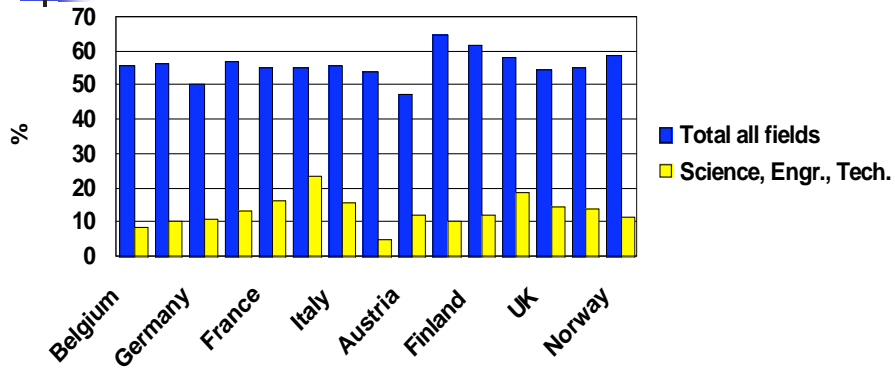
- Integration of actions in the ordinary processes
  - Not special actions "on the side"
  - But ok: Mentoring, special stipends and financial support, etc.
- Agree on definition of "best qualified"
- Identifying/"finding" the "best qualified"
- Retirement wave a "golden opportunity"?

Source: Equality Advisor, Anna Vibeke Lorentzen, Univ. Of Oslo, May 4, 2007  
Ragnhild Sohlberg, Ph.D.

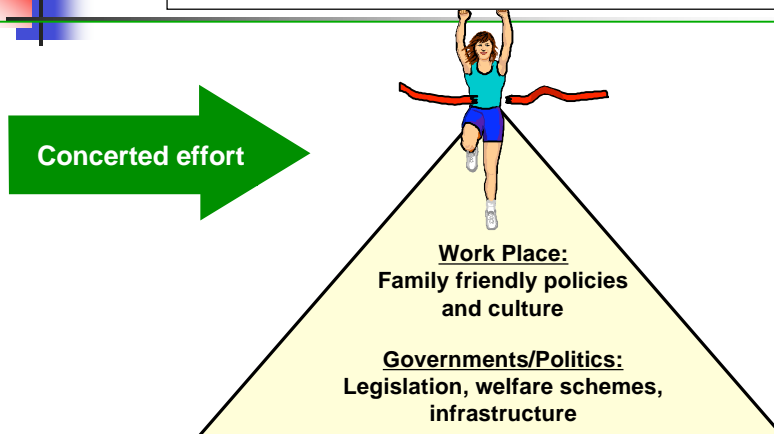
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## Women graduates in tertiary education (2000)

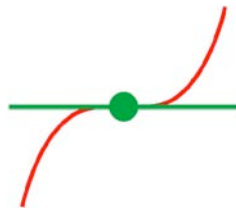
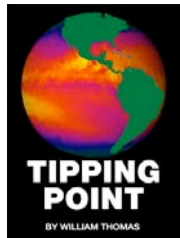


## The Individual and the Family

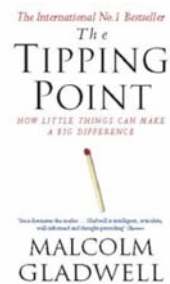


## The Tipping Point...

- A sociological term that refers to the moment when something unique becomes common.



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## We've come a long way....

- Look to the "pilots" in the Nordic countries
  - There is no such thing as ONE best practice
  - Learn from "good practices"
  - Adapt, not adopt
- TANSTAAFL
  - There Ain't No Such Thing As A Free Lunch



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## But which way forward?



Thank you  
for  
your  
attention!

<http://kilden.forskningsradet.no/c17224/artikkel/vis.html?tid=17282>  
<http://www.gender.no/>

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