

Reflections on the Gender Equity Study at MIT: Progress and challenges ahead

Penny Chisholm
MIT



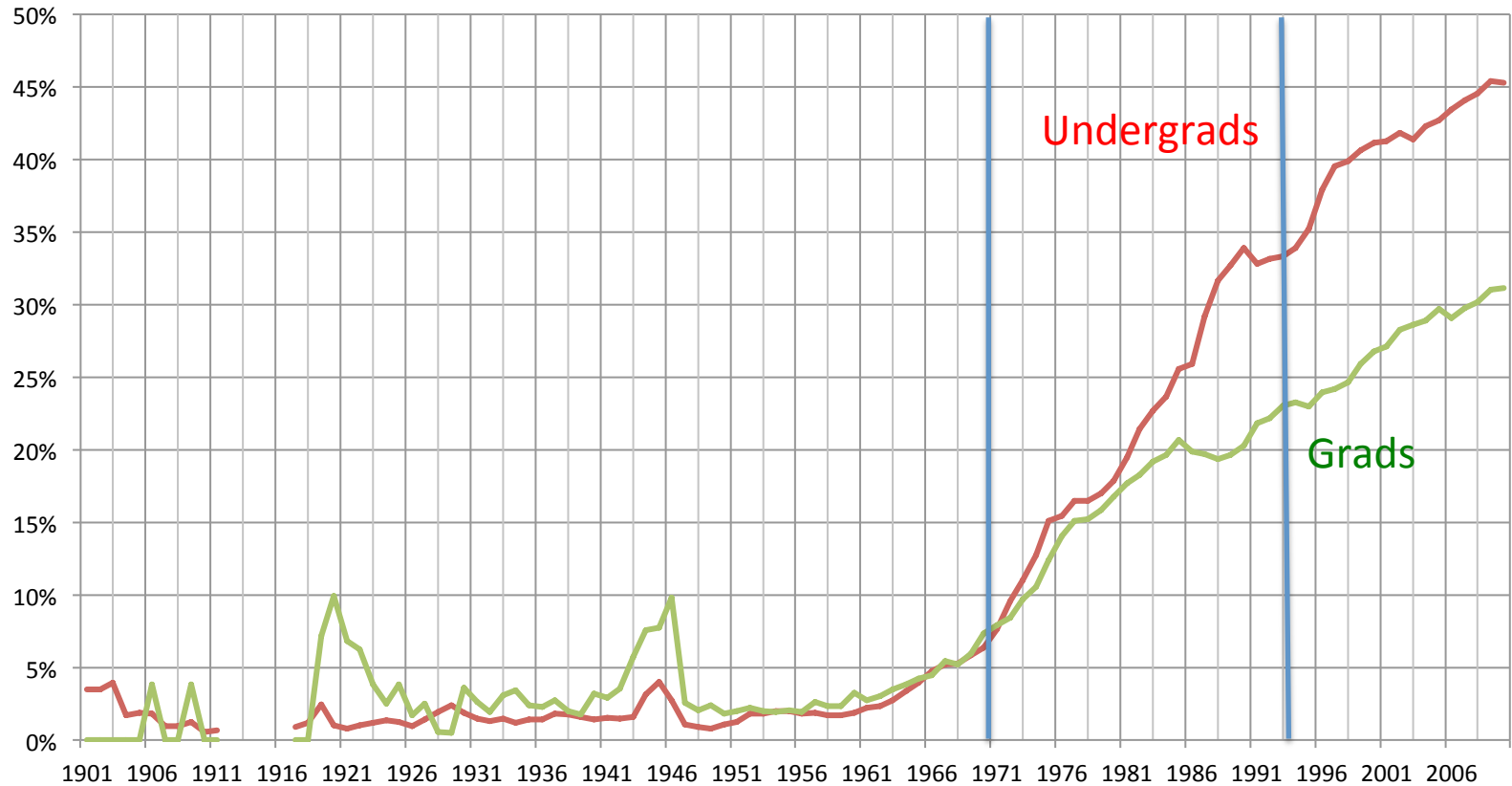
SOCIETY FOR WOMEN IN MARINE SCIENCE

WHOI September 26, 2014

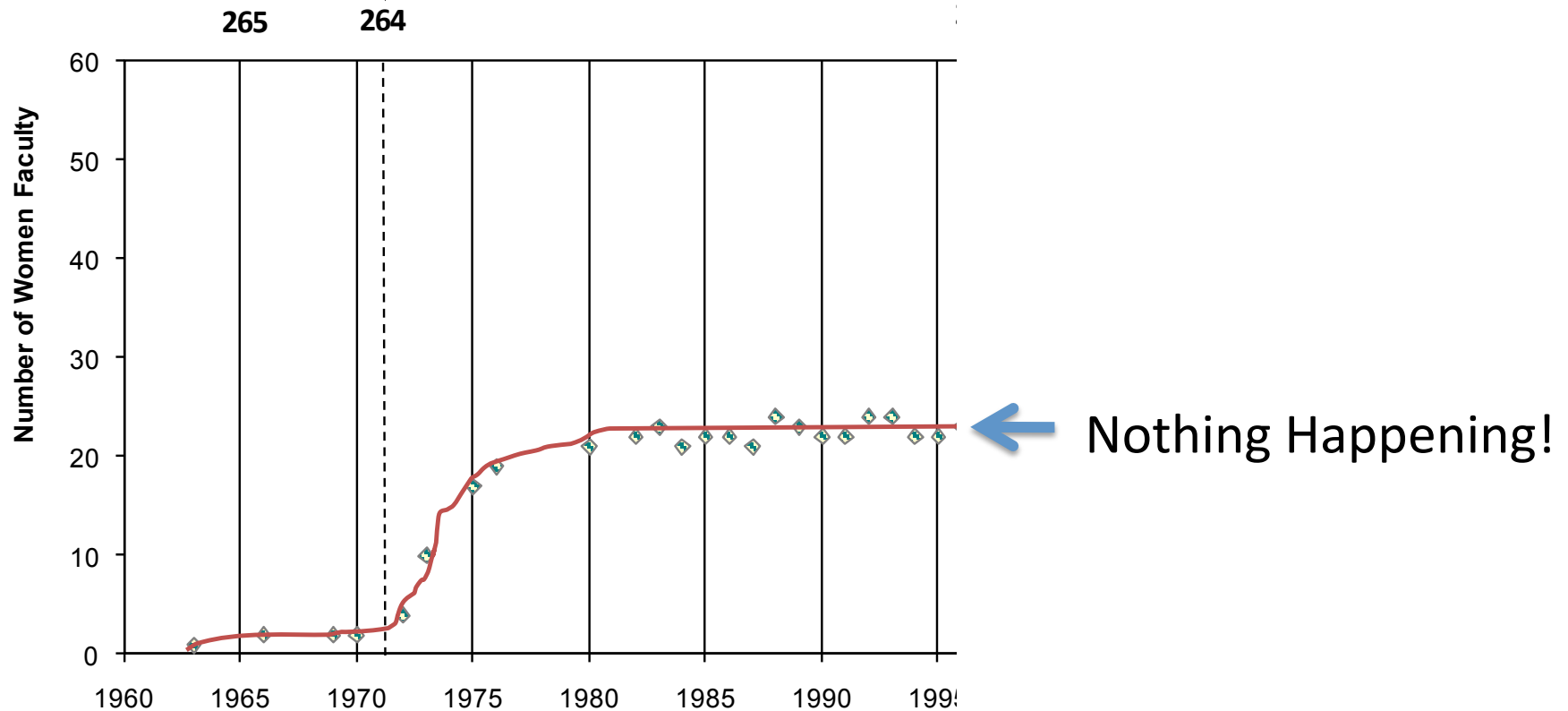
Overview

- My journey 1965-1995
- MIT Gender Equity Study 1994 - 2012
- Major barriers
- Discussion

% Women at MIT (2001-2010)



Women Faculty in the MIT School of Science 1963-1995



1994: Senior Women Faculty Rallied

- Compared notes
- Met several times
- Suspected unequal treatment, but no data
- Went to Dean who became an ally
- Formed Committee to gather data



**The TEAM
1994**

The women were highly accomplished
relative to male counterparts

	The 16 WOMEN	The 162 MALE FULL PROFESSORS
US National Medal of Science	4 (25%)	7 (4%)
National Academy of Science/Engineering	11 (69%)	51 (31%)

1995-1999: The hard work of gathering data and raising awareness

- Committee formed – included men

Sallie W. Chisholm - CEE and Biology

Jerome I. Friedman - Physics (department Head)

Nancy Hopkins - Biology (Committee Chair)

Daniel Kleitman - Mathematics (former department Head)

June L. Matthews - Physics

Mary C. Potter - BCS

Paola M. Rizzoli - EAPS (served 7/95-)

Leigh Royden - EAPS (served 2/95-7/95)

Robert J. Silbey - Chemistry (department Head)

JoAnne Stubbe - Chemistry and Biology

1995-1999: The hard work of gathering data and raising awareness

- Much discussion about a plan
- Worked with administration to collect data on space, salaries, hiring
- Hopkins placed on MIT Academic council – (the seat of power)
- Educated people, recruited allies



Fearless leadership of Nancy Hopkins was crucial!

\$ 1 million Grant Secured from the Ford Foundation

- *IMPORTANT*: Compensate women for working on the problem
- Workshops with major Universities to join forces
- Support committees in all schools at MIT

OUTCOME

- *Salaries adjusted*
- *Pensions were adjusted*
- *Marginalization recognized*
- *Equity committees formed*
- *Programs to hire and maintain more women*

The MIT Faculty Newsletter

Vol. XI No. 4

March 1999

Special Edition

A Study on the Status of Women Faculty in Science at MIT:

How a Committee on Women Faculty came to be established by the Dean of the School of Science, what the Committee and the Dean learned and accomplished, and recommendations for the future

Members of the First and Second Committees



Chuck Vest
MIT President

"I have always believed that contemporary gender discrimination within universities is part reality and part perception.

True, but I now understand that reality is by far the greater part of the balance."

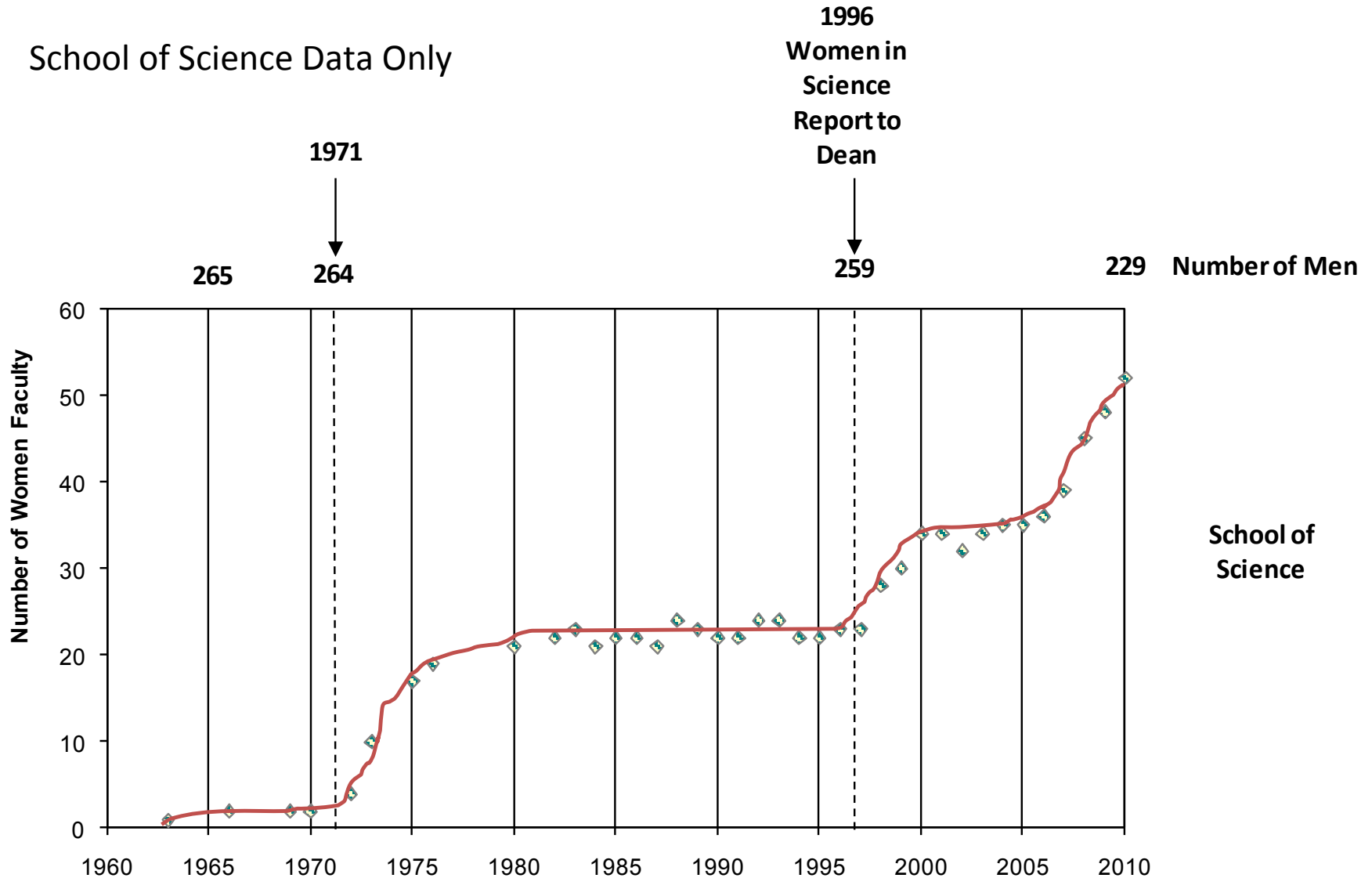
- *Front Page of the New York Times*
- *Hopkins Invited to the White House*

Change in # of Female and Male Faculty in Science and Engineering at MIT

	<u>WOMEN</u>	<u>MEN</u>	
<u>1995</u>			
Engineering	24	321	
Science	22	252	
Total	46	573	8%
<u>2011</u>			
Engineering	60	310	
Science	52	224	
Total	112	534	21%

Nothing happens without effort

There are too many unintentional biases



How was this accomplished?

- Searched more broadly
- Women placed on search committees
- Called colleagues for names
- Attended talks by women at meetings
- Dean reviewed all searches.
- Department Heads got the message - They would be judged by their numbers.
- Commitment to equity a criterion for Administrative appointment

Leadership from the TOP ADMINISTRATION was crucial!

Gathering of University Presidents

Leaders of 9 universities and 25 women faculty meet at MIT, agree to equity reviews

January 30, 2001

The 184-word statement was approved by university Presidents from the University of California, Charles V. Jones; University of Michigan, Harold A. Andersen; Stanford University, Leland B. Yeager; and others.

The workshop agenda was built around four questions:

1. What are the successful or unsuccessful strategies you have pursued?
2. What are the systemic causes of the problems we face?
3. What new actions could each institution take?
4. What might we do collectively?



Comments from President Vest upon Nancy Hopkin's Retirement

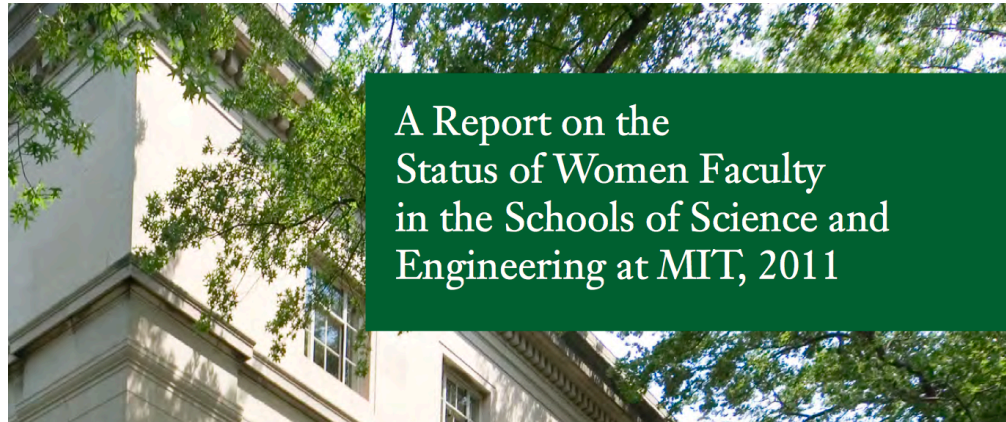
Chuck Vest,
Former President of MIT

“Nancy led us all on a remarkable journey.... *What she learned and communicated spoke to women, and to men, everywhere – in other schools, in other universities, in other countries, in research laboratories, in industry, and in the White House.* Nancy's work ... built momentum to change our attitudes, correct our lack of understanding, engage our sense of fairness, strengthen our communities, and *enhance our scientific and technical capability*”.



“It made you appreciate that a *truly good person* can use a position of power to fix a problem, and that is what *great institutions* are all about.”

2010: New committees to revisit the issues



The New York Times

U.S.

WORLD U.S. N.Y. / REGION BUSINESS TECHNOLOGY SCIENCE HEALTH SPORTS OPINION

Gains, and Drawbacks, for Female Professors

By KATE ZERNIKE

Published: March 21, 2011

Women must navigate a narrow acceptable personality range that is neither too aggressive nor too soft.

*"I am not patient and understanding.
I'm busy and ambitious!"*

Successes...

- Increase in women faculty and women in leadership
- Improved family policies

Concerns...

- Arguments of affirmative action
- Erode confidence of women and students
- Disproportionate level of 'service'
- Stereotypes prevail

A few topics for discussion

- Affirmative Action
 - Imposter Syndrome
 - Stereotype threat
- Family
- Unconscious gender bias

The issue of children

When Scientists Choose Motherhood

A single factor goes a long way in explaining the dearth of women in math-intensive fields. How can we address it?

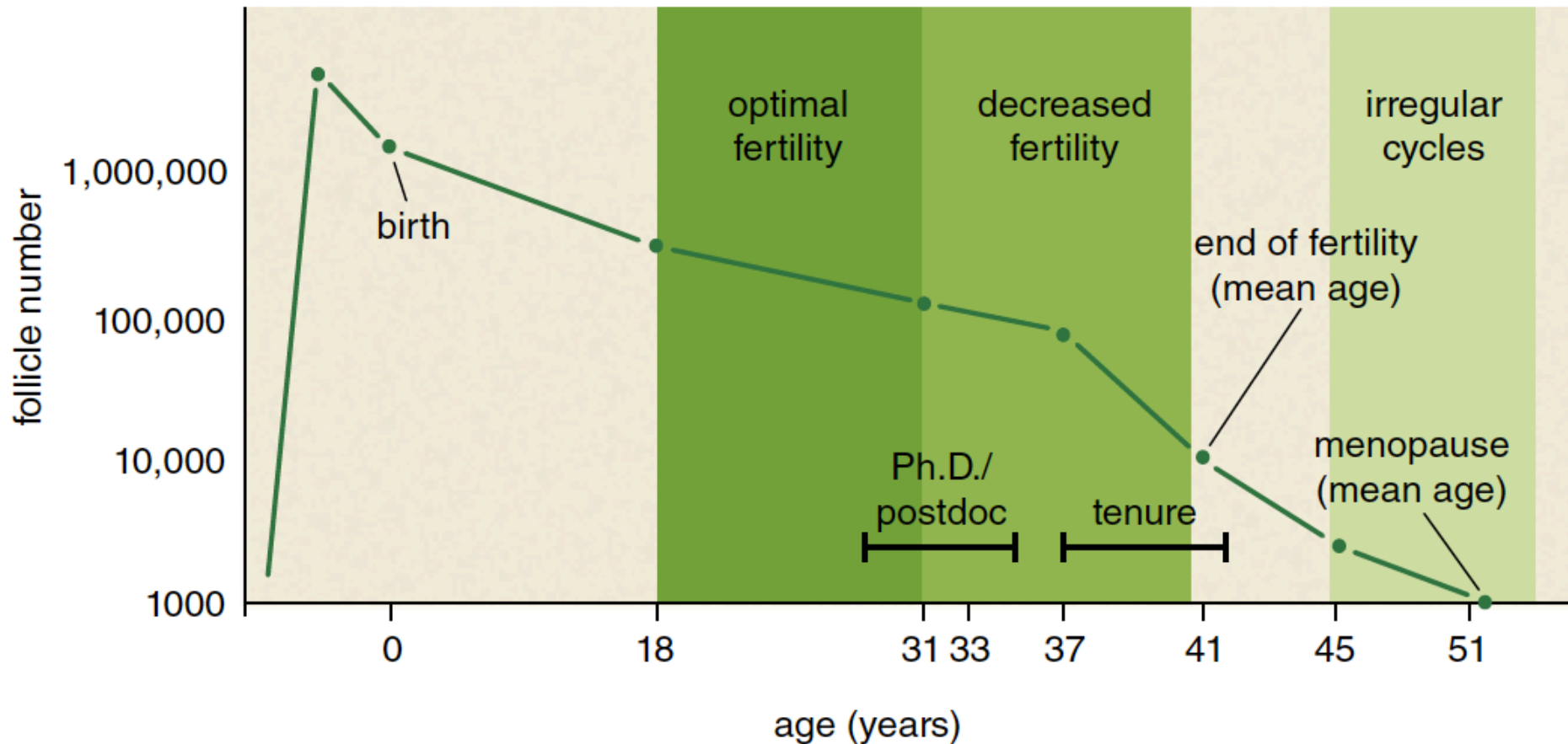
Wendy M. Williams and Stephen J. Ceci

A reprint from

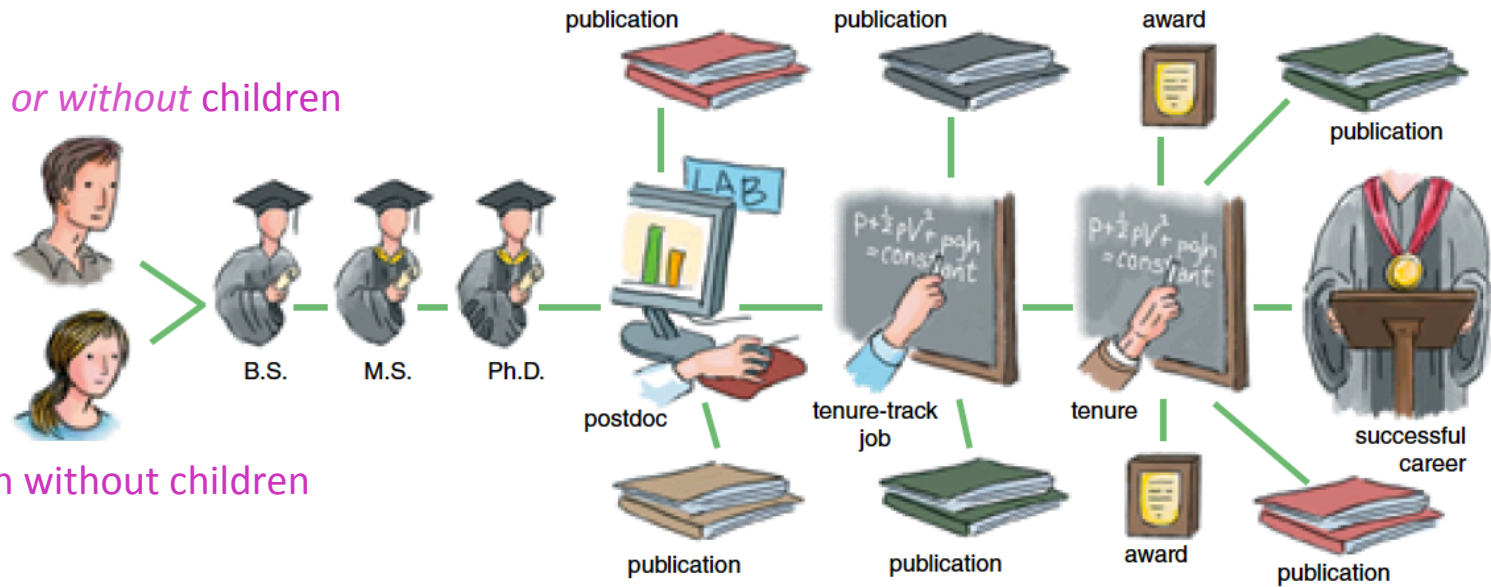
American Scientist
the magazine of Sigma Xi, The Scientific Research Society

Fertility and Age

There is a fundamental gender difference

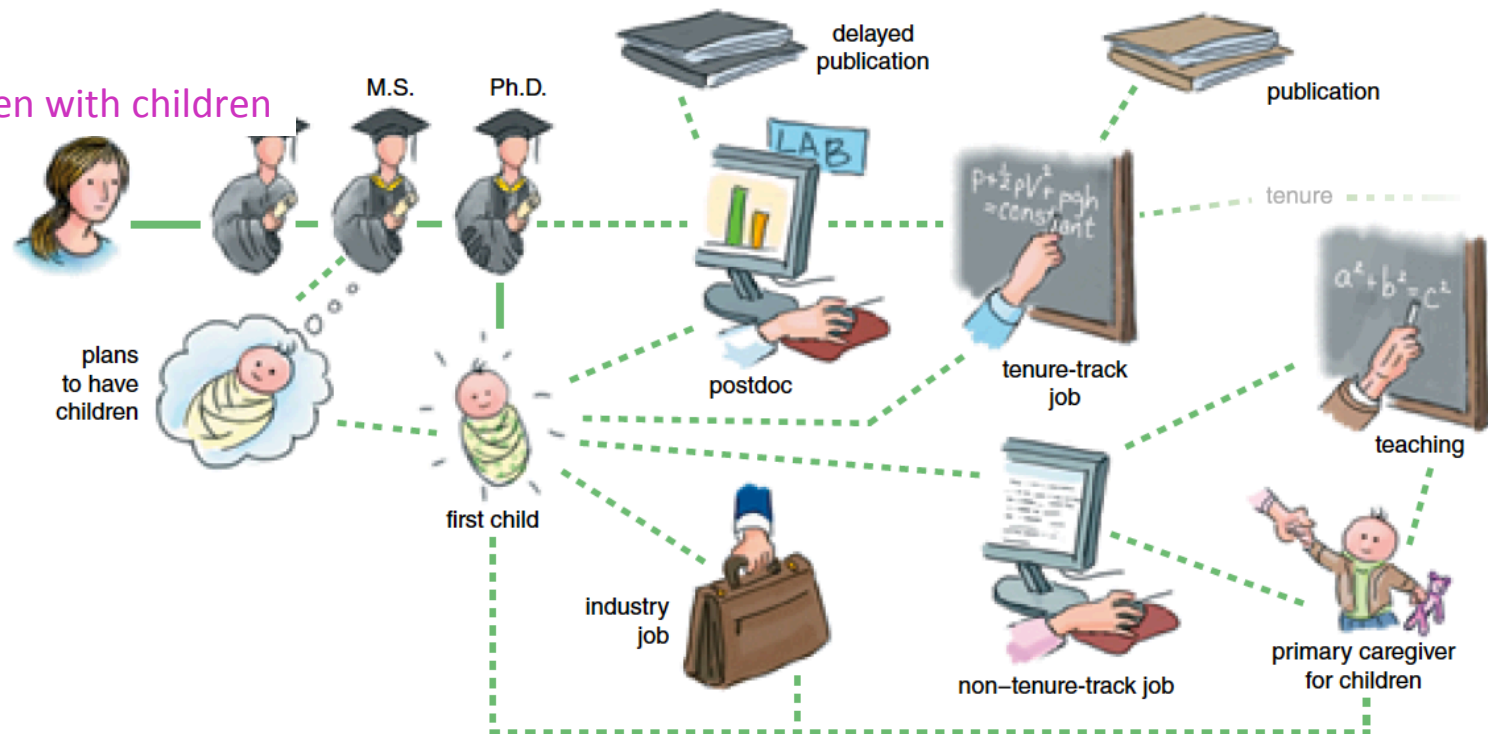


Men with or without children

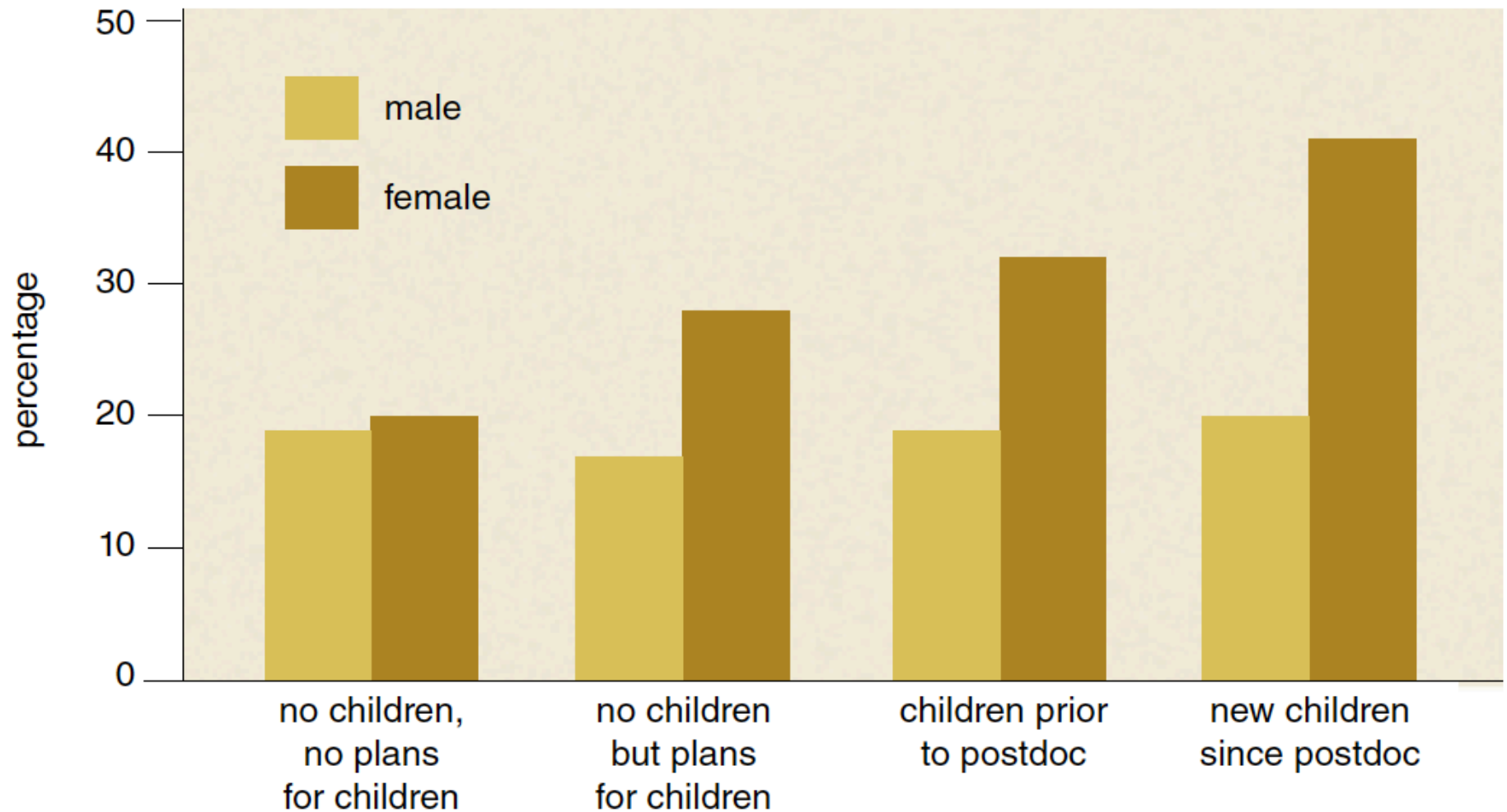


Women without children

Women with children

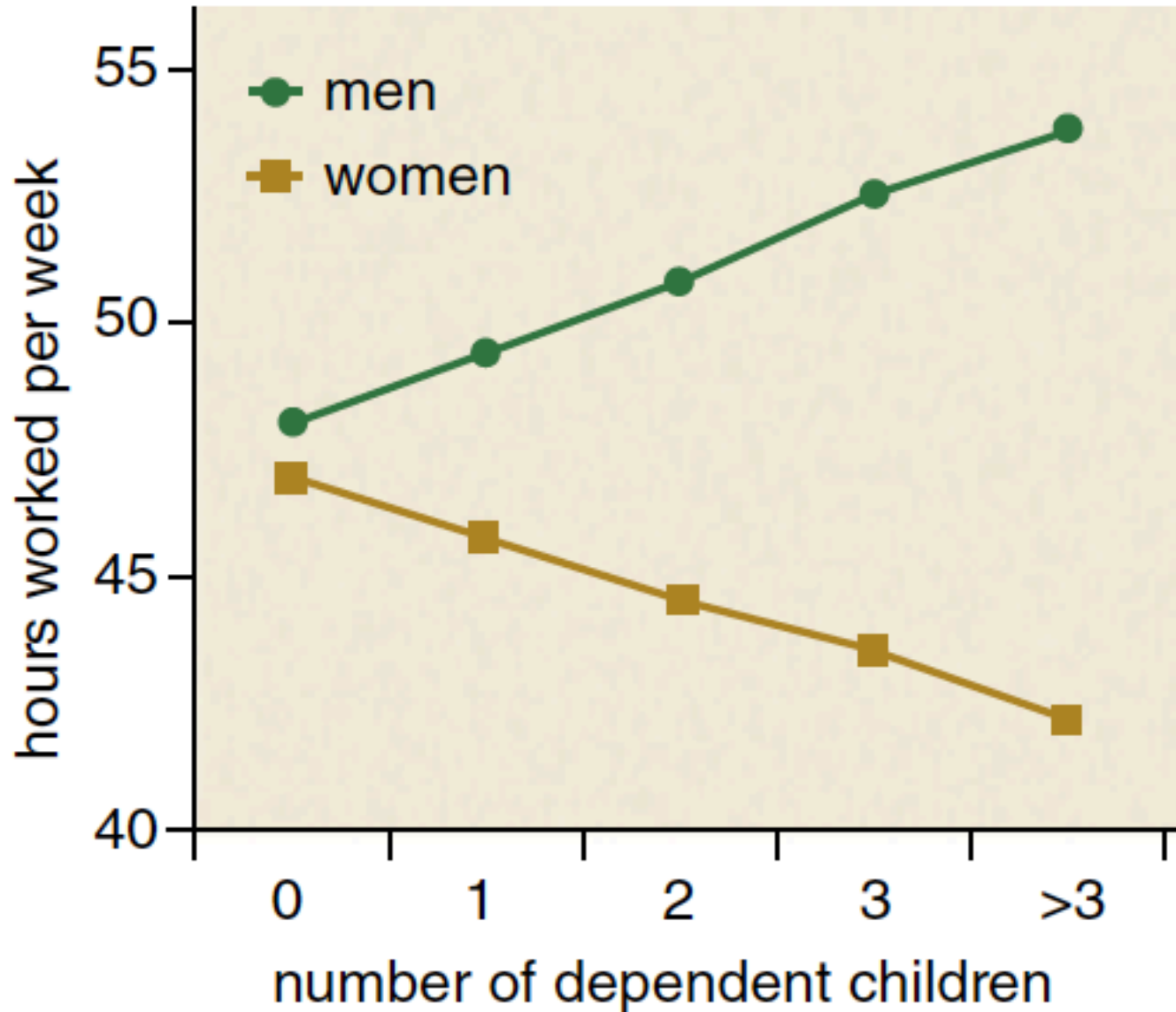


Children exert a greater influence on women's career choices

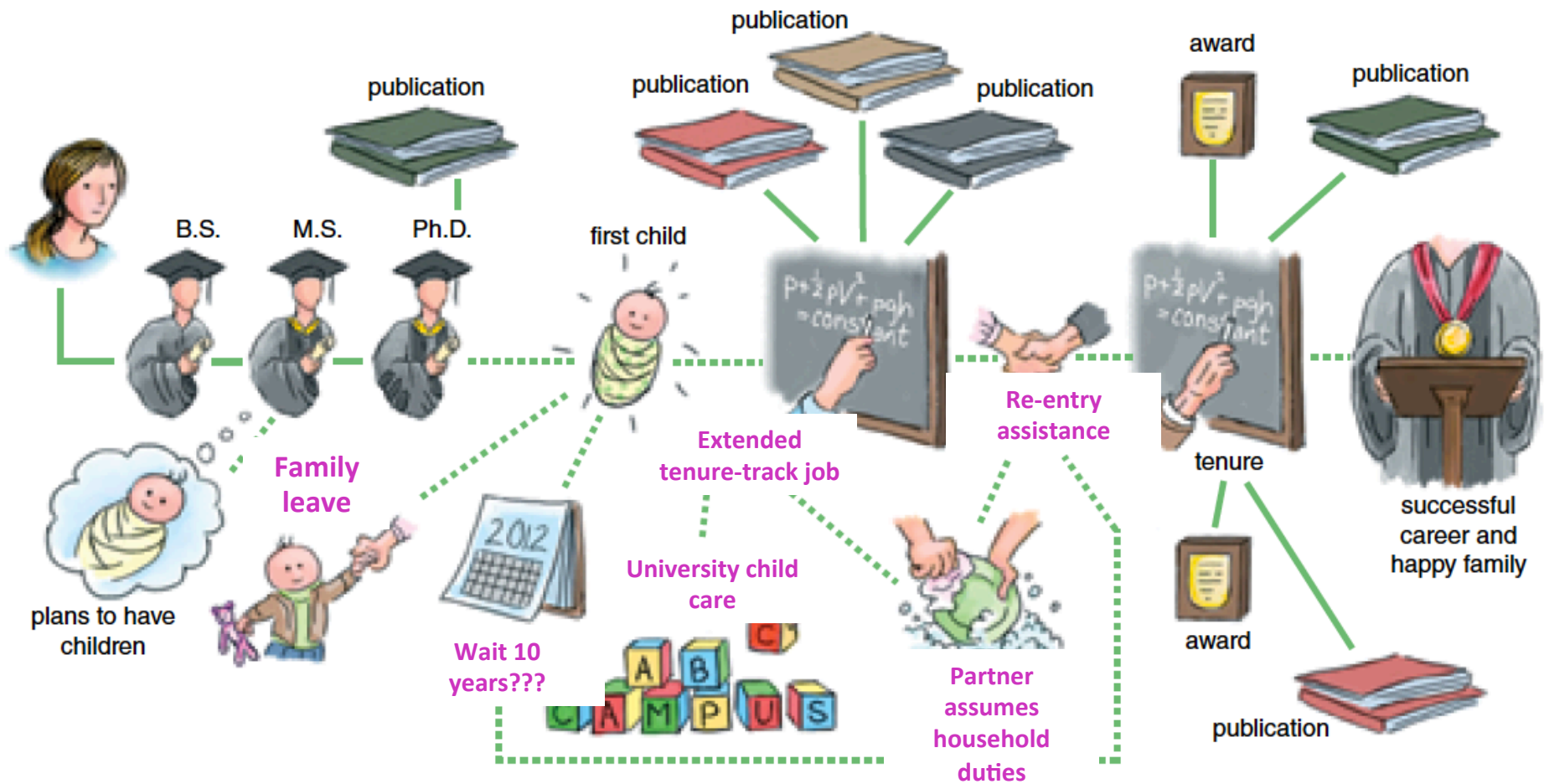


Post-docs who abandoned professorship goals

Very Interesting!



Possible solutions?



Day care situation at MIT is vastly improved! But....



Whitehead gets dedicated daycare



COMMUNITY

JULY 2, 2011 BY MARK BUSHY

Anyone who has tried to get daycare in Cambridge knows that it isn't easy—there's only a handful of options, and waiting lists are often years long.

But that's no longer the case for Whitehead Institute employees.

Thanks to a partnership between Whitehead and the local daycare center Bright Horizons, Whitehead's faculty, postdoctoral researchers and staff now have a dedicated daycare center—dubbed “Whitehead Institute at Bright Horizons”—located just a few minutes away.

The David H. Koch Childcare Center

STRATEGYMore: [The Atlantic](#) [Work Life Balance](#) [PepsiCo](#) [Indra Nooyi](#)

Pepsi CEO's Mother Had A Brutally Honest Reaction To Her Daughter's New Job



CONOR FRIEDERSDORF, THE ATLANTIC

JUL. 1, 2014, 4:33 PM

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Joe Raedle/Getty Images

While interviewing Indra K. Nooyi, the CEO of PepsiCo, at the Aspen Ideas Festival Monday, David Bradley, who owns The Atlantic, asked two questions that elicited as frank a discussion of work-life balance as I've seen from a U.S. CEO. Below is a lightly edited transcript. The second question was preceded by a brief discussion of Anne-Marie Slaughter's "Why Women Still Can't Have It All."*

Can women really have it all?

<http://www.businessinsider.com/pepsico-ceo-women-cant-have-it-all-2014-7?IR=T>

Inadvertent gender bias still a huge issue

Women have to work harder to achieve the same goals

Many double blind studies reveal intrinsic bias

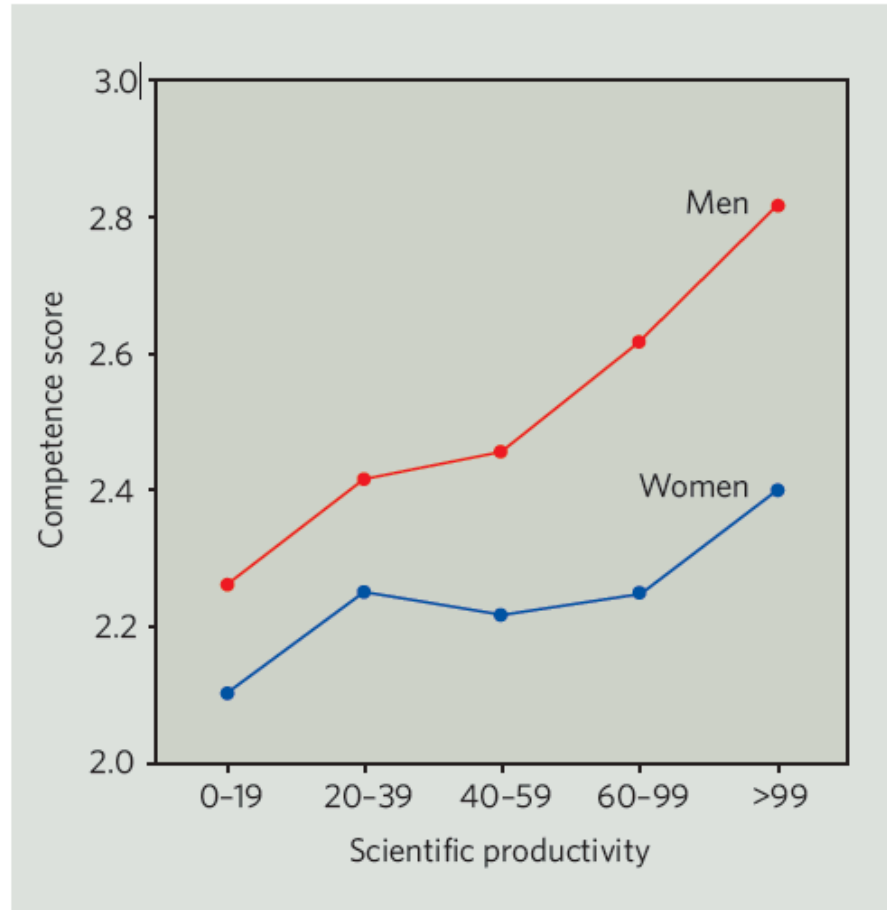


Figure 2 | Competence scores awarded after peer review. Peer reviewers in Sweden award lower competence scores to female scientists than to similarly productive male scientists.

Social Science on Gender Bias

Valian V (1999). *Why So Slow: The Advancement of Women*. Cambridge: MIT Press

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Goldin C and Rouse C (2000). Orchestrating impartiality: The impact of “*blind*” auditions on female musicians. *American Economic Review* 90: 715-741.

Steele CM (1997). A threat in the air: How *stereotypes shape intellectual identity* and performance. *American Psychologist* 52: 613-629.

Steinpreis RE, Anders KA, and Ritzke D (1999). The *impact of gender on the review of the curricula vitae* of job applicants and tenure candidates: A national empirical study. *Sex Roles* 41: 509-528.

Moss-Racusina et al (2012). *Science faculty’s subtle gender biases favor male students*. 2012. *Proc. Natl. Acad. Sci.*

SEE ALSO: UNIVERSITY OF MICHIGAN ADVANCE PROGRAM:
<http://sitemaker.umich.edu/advance/home>

Important!

We are all biased!

Men and women alike judge women to be less talented/accomplished

These are unconscious biases – culturally ingrained

Elite male faculty in the life sciences employ fewer women

Jason M. Sheltzer^{a,1} and Joan C. Smith^b

^aDavid H. Koch Institute for Integrative Cancer Research, Massachusetts Institute of Technology, Cambridge, MA 02139; and ^bTwitter, Inc., Cambridge, MA 02139

Edited* by Shirley Tilghman, Princeton University, Princeton, NJ, and approved June 5, 2014 (received for review March 25, 2014)

Women make up over one-half of all doctoral recipients in biology-related fields but are vastly underrepresented at the faculty level in elite life sciences laboratories. We found that elite male scientists with children are more likely to be hired for tenure-track jobs than male scientists without children (13). Thus, a

June 5, 2014

- Male faculty employ fewer females
- Elite males train even fewer
- New assistant professors disproportionately from these elite laboratories
- Leaky pipeline caused by exclusion of women from high-achieving laboratories?

Discrimination or self-selection?

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<http://web.mit.edu/fnl/women/women.html>
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http://web.mit.edu/faculty/reports/pdf/women_faculty.pdf
9. Elite male faculty in the life sciences employ fewer women. JM Sheltzer and JC Smith. 2014. Proc. Natl. Acad. Sci. USA 111 (28) 10107-10112.
10. Does Gender Matter? B Barres. Nature **442**, 133-136 (13 July 2006)
11. Science faculty's subtle gender biases favor male students. CA Moss-Racusina, MJ Graham, and J Handelsman. 2012. Proc. Natl. Acad. Sci.
12. Women in Biotechnology: Barred from the boardroom. A McCook. 2013. Nature **495**, 25–27 (07 March 2013) doi: 10.1038/495025a
13. Women Scientists in America, Vol. 1-3. 1982, 1995, and 2012. MW Rossiter. Johns Hopkins press.