## Tenure: Is it really outmoded?

Does tenure really protect academic freedom and "without tenure we will return to the days when faculty were dismissed for teaching unpopular opinions", as some claim? Or "in order for institutions to remain competitive they ought to be able to hire and fire their faculty as needed to meet the educational demands of their students", as others claim? Regardless of which point of view is closer to truth, evidence of unfairness of many of the existing tenure processes for women in sciences has been exposed for more than ten years. Why has tenure been so controversial and so "hard to reach" for women in sciences?

Recently I read the May 19th 2005 report "Work Group Report: Flexible Work Loads for Tenure-Track Faculty" by the President's Council on Women’s Issues at The Ohio State University (available online at womensplace.osu.edu/publications.htm). This report was developed "in response to the very disappointing data on the presence of women faculty at Ohio State, as outlined in the Status Report on Women 2004". One might think that a great institution such as The Ohio State University should have been successful in implementing its policy of extending the tenure clock in order to recruit and retain women tenure-track faculty. But according to this report "some numbers look worse now than 10 years ago" (and more likely this is the case in other universities across the country).

Back in the 1990's several reports suggested possible discrimination against women faculty. For example, in 1995 the CBMS Survey ("A Survey of Four-Year and University Mathematics in Fall 1995: A Hiatus in Both Enrollment and Faculty Increases, Donald C. Rung, professor of mathematics at Pennsylvania State University and director of the 1995 CBMS Survey") reported some disappointing data on the number of women faculty in mathematics and statistics departments:
"The number of full-time women faculty was nearly the same in 1995, 3,880, as it was in 1990, when it was 3,855 . In fall 1995 tenured and tenure-eligible women were $8 \%$ of the full-time faculty in Ph.D. mathematics departments as compared to $15 \%$ for M.A. mathematics departments and 24\% for B.A. mathematics departments. Combining all three types of mathematics departments shows that tenured and tenure-eligible women were $16 \%$ of the 18,248 fulltime mathematics faculty and $18 \%$ of the 16,108 tenured and tenure-eligible mathematics faculty. According to figures from the annual reports of the joint AMS-IMS-MAA Data Committee, the percentage of women among Ph.D.s awarded from July 1, 1980, to June 30, 1995, from United States mathematics and statistics departments was 19\%; for the period July 1, 1990, to June 30, 1995, the percentage of women Ph.D. 's was $22 \%$."

A year later, the MIT report gave some results on possible discrimination against women faculty after tenure. From http://web.mit.edu/fnl/women/women.html\#The\ Study: The MIT Faculty Newsletter, Match 1999)- SUMMARY FROM THE FIRST REPORT

OF THE COMMITTEE ON WOMEN FACULTY IN THE SCHOOL OF SCIENCE 1996:
"The Committee learned that untenured women faculty feel that men and women faculty are treated equally in terms of resources, salary, and other material benefits. Most feel supported by their departments in their scientific endeavors, and feel included in departmental activities and in the types of intellectual networking needed to succeed in science... After tenure, many senior women faculty begin to feel marginalized, including those who felt well supported as junior faculty. They sense that they and their male colleagues may not be treated equally after all. Incidents in their own professional lives or differential treatment of their male and female colleagues may open their eyes to this reality".
(See also Statistics Teaching in Colleges and Universities: Courses, Instructors, and Degrees in Fall 1995, Journal article by Don O. Loftsgaarden, Ann E. Watkins; The American Statistician, Vol. 52, 1998).

It does not seem though that such reports produced a nationwide improvement of tenure rates for women faculty, since more recent research articles report similar results. The Professional Geographer, Volume 52 Issue 4 Page 737 - November 2000, Focus Section: Women in Geography in the 21st Century, Faculty Reappointment, Tenure, and Promotion: Barriers for Women, Julie A. Winkler, reports:
"Women faculty continue to experience academe differently than male faculty. A review of recent literature indicates that women's representation on university faculties has advanced slowly; women are less likely to be tenured or promoted compared to male faculty; and women faculty earn less than their male colleagues. A recurring theme is that the intellectual and social isolation of women faculty affects their research productivity. Gender stereotypes held by colleagues, departmental and college administrators, and students also contribute to the difficulties women face in the reappointment, tenure, and promotion process..."

Also by Harper, Elizabeth P. "Full-time Women Faculty off the Tenure Track: Profile and Practice", The Review of Higher Education - Volume 24, Number 3, Spring 2001, pp. 237-257:
"Women are overrepresented in the growing number and proportion of full-time non-tenure-track faculty. Data from NSOPF-93, institutional surveys, and interviews show these women clustered in the lowest faculty ranks and in traditionally female disciplines. They carry heavier teaching loads than their male colleagues, are paid less, and have fewer opportunities for advancement. Full-time non-tenure-track women with a doctorate are the least satisfied of all faculty..."

And from http://www.insidehighered.com/news/2006/09/19/women, Sept. 192006 :
"The Real Barriers for Women in Science":
"Women are seriously underrepresented on academic science and engineering faculties because of a mix of "unintentional" biases and outdated institutional policies and structures, a National Academies committee said in a report Monday..."Beyond Bias and Barriers: Fulfilling the Potential of Women in Academic Science and Engineering," was prepared by the academies' Committee on Maximizing the Potential of Women in Academic Science and Engineering, which is made up of college presidents and provosts, professors, scientists and policy makers and headed by Donna E. Shalala, president of the University of Miami and former U.S. secretary of health and human services.

The report lays out a series of findings that rebut the notion - offered most famously of late in a controversial speech by Lawrence H. Summers early last year - that a lack of talent and/or motivation play a large role in explaining the relative underrepresentation of women in science and engineering fields. Among the panel's findings:..

- Although women fall out of academic science at nearly every stage of the pipeline, women are underrepresented on faculties even in fields in which they have reached relative parity. They make up only 15.4 percent of full professors in the social and behavioral sciences and 14.8 percent in the life sciences, despite having earned more than 30 percent and 20 percent of the doctorates in those fields, respectively, over more than 30 years...
- Women are "very likely" to face discrimination - sometimes deliberately but often inadvertently - in "every field of science and engineering. (Minority women, the panel notes throughout the report, often face a double whammy.) The discrimination results from a combination of built-in biases that make them less likely to hire a woman than a man with identical accomplishments, of evaluation criteria that "contain arbitrary and subjective components that disadvantage women." For instance, "characteristics that are often selected for and believed ... to relate to scientific creativity - namely assertiveness and single-mindedness " are both given greater weight in hiring and promotion than traits such as flexibility, diplomacy and curiosity, and "stereotyped as socially unacceptable traits for women..."

Recent trends in the job market seem to present additional "barriers". According to NEA Higher Education there has been "an increase in the numbers of faculty hired on limited term contracts of five years or less and an increase in the numbers of part-time temporary faculty hired" (NEA has a policy in favor of tenure-several articles on tenure can be found on NEA website http://www.careerjournal.com/jobhunting/ change/ 20060914-rivas.html). Is this an indication that demanding a "life lasting" job might not be the most realistic approach in an academic career?

Women in European countries appear to face similar struggles (and most likely in other countries worldwide). Interestingly, they seem to look up to their American colleagues, according to this article: Journal of Women's History 18.1 (2006) 172-176 , Women's History and Academic Careers , Berteke Waaldijk:
"One of the perks of globalization is that discussions taking place in countries on the other side of the globe become interesting because the idea that "it might happen here too" inspires hope and fear. Thus, in the past, women's historians in many European countries have looked with envy and with hope to their American colleagues who found jobs, began to occupy positions of authority, and could publish their work, who were, as Linda Kerber says in her essay, "doing what they loved" and were also "being paid to do it." Far into the 1980s and 1990s conditions in many European universities seemed definitely bleaker. The struggle to make gender a "useful category of historical analysis" rarely ended in personal victories for those who participated in that struggle. I have read the perceptive observations of Linda Kerber from a position as a tenured professor at a publicly financed university (private universities are rare) in the Netherlands... "We" now have tenured jobs and some of us hope to make a difference..."

Reporting problems with existing tenure processes does not appear to be sufficient to ensure their fairness. The Caucus for Women in Statistics and ASA section on Career Development have organized an invited discussion panel titled "New policies to facilitate the tenure process for women in sciences" at this years Joint Statistical Meetings. The session is chaired by Anna Nevius (anevius@cvm.fda.gov) and the panelists are: Rebecca Doerge, Professor, Departments of Statistics and Agronomy Purdue University
(doerge@stat.purdue.edu), Regina Y. Liu , Professor, Department of Statistics, Rutgers University (rliu@stat.rutgers.edu ), Mari Palta, Professor Departments of Population Health Sciences \& Biostatistics and Medical Informatics University of Wisconsin-Madison (and past Caucus president -mpalta@wisc.edu) and Nancy Reid, Professor, Department of Statistics University of Toronto (reid@utstat.toronto.edu). I hope that you can join us.

Truly yours,

Tena Katsaounis
President, Caucus for Women in Statistics

