

A REPORT ON WOMEN IN ASTRONOMY

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A Publication of the American Astronomical Society Committee on the Status of Women in Astronomy

Our guest column is from Claude Canizares, Bruno Rossi Professor of Experimental Physics and Director of the Center for Space Research at Massachusetts Institute of Technology.

Commentary

By Claude R. Canizares

o paraphrase Mark Twain, recent reports of the death of discrimination have been greatly exaggerated. These accounts accompany a pernicious surge in legal and political challenges to affirmative action programs, based in part on the premise that such efforts are

no longer needed. It is true that significant progress has been made in swelling the ranks of both women and minorities in some areas where they have been previously underrepresented, from Cabinet offices to Boardrooms to the tenured ranks of research universities. The fact that people

bother attacking affirmative action programs is itself a sign that, whatever their shortcomings, they have had effect.

In our own discipline signs of progress can be found in the numbers of women advancing through all levels, as some of the statistics in this

issue of STATUS indicate. But, as in many areas of society, we are nowhere near where we should be in eradicating gender bias. Sadly, we are still much further behind in building the participation of minorities. In the half century it has taken us to erase all vestiges of devastation in Europe and Japan, and to



Claude R. Canizares

start and end the cold war, we have not managed to end discrimination.

Where should we be in terms of the representation of women in astronomy? I strongly believe the only conceivable answer is that women, and indeed all segments of society, should be represented roughly in proportion to

their representation in the population at large. This premise is contained in the Baltimore

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The following article, shortened slightly, is reprinted with permission from the Boston Globe 3/21/99. The public version of the MIT report on discrimination against women faculty can be found at http://web.mit.edu/fnl/women/women.html.

We never know how high we are

Til we are called to rise;

And then, if we are true to plan,

Our statures touch the skies.

- Emily Dickinson

~

MIT Women Win Fight Against Bias: School Admits Discrimination

By Kate Zernike

The women professors at the Massachusetts Institute of Technology presumed that their numbers were low for the reason everyone had accepted as fact: Girls just don't

Then they took out their tape measures.

Sneaking around the nation's most prestigious institute of science in 1994, 15 women went office to office comparing how much space MIT awarded women with what men of equal status got. It was less by about half.

Salaries were less, too. As was the research money given to women. And the numbers of women on committees that made decisions about hiring and funding.

There were no women department heads and never had been. And while MIT lavished

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Charter, and my own thinking on this was very much sharpened by the discussions at the 1992 STScI meeting on Women in Astronomy, which engendered that document. Until someone finds convincing genetic evidence to the contrary, women are biologically just as capable of leading creative and productive careers in science as men. So their historically low representation in the physical sciences, for example, can only be the result of systemic societal deficiencies that inhibit or discourage their participation.

Why has progress toward equality been so hard to achieve? This is not an easy question for people with backgrounds like mine, and I suspect most of yours. We are used to solving problems on blackboards, computer terminals and lab benches, where we can manipulate equations, data sets and integrated circuits. The problem of the underrepresentation of women in astronomy, and even more so in physics, is nothing like the ones we're used to solving. Though numbers are often used to talk about it, this is not a problem of numbers. It is insidious and deeply entrenched in human psychology and sociology — those very subjects we tended only to dabble in or even shied away from because they seemed so woolly and imprecise. There is little comfort in knowing that our college friends who did major in those subjects are not doing much better than we are on this one.

A major impediment to addressing the problem is that the causes of gender imbalance are so widely diffused across society and the time scales for effecting and observing change are so long. The best astronomical analogy I can think of is the Hubble constant. For most of my career, I've had to carry around two numbers, 50 and 100 km/s-Mpc, each determined by a different group of extremely capable and convincing astronomers. There was no single explanation for the factor of two between these disparate values. Rather, the discrepancy came from an accumulation of small differences of the same sign at each rung of the distance ladder, leaving us with embarrassingly different size scales and ages for the universe.

The underrepresentation of women results from a similar accumulation of small, subtle and generally unintended effects, most of them of the same sign. In Virginia Valian's succinct phrase, "... mountains are molehills piled one on top of the other." [NYT, Aug 25, 1998]. A major distinction to my cosmic analogy is that the career ladder for an astronomer has many more rungs than the distance ladder to the Virgo Cluster, and there are literally thousands of baby steps she must take between rungs. So

while the retarding effects may be tiny, they add up to cause much more than a factor of two in almost every measure of female participation, from high school physics classes to the rotunda of the National Academy of Sciences. And whereas decades of hard work are bringing us close to convergence on a single value for the Hubble constant, it has taken many more decades to make significantly less progress in eradicating gender bias.

The only way to make progress in achieving gender balance is to match the wide diffusion, deep entrenchment and long duration of the causes of imbalance with a broad spectrum of

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STATUS

Edited by
Meg Urry and Lisa Frattare
Space Telescope Science Institute
cmu@stsci.edu frattare@stsci.edu

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forceful and sustained countermeasures. This, of course, is the motivation behind most affirmative action programs. But such formal programs must be complemented by a host of collateral actions, many of them informal, many tailored to individual institutions or situations. An obvious example is the need to address family issues — one, by the way, that also shows how often "women's" concerns turn out be long neglected "human" concerns. Everyone will benefit from the solutions.

We men must carry our fair share of the burden for redressing gender imbalance. It is much harder to break a glass ceiling by bashing it with your head from below than by using a sledge-hammer from above. Because the ceiling exists, most of those presently above it are men, so for now their share is more than half the load. So long as men hold most of the positions of

power, they must accept the bulk of the responsibility that comes with it. It is also appropriate that men at all levels take responsibility for redressing gender inequities in the same sense that whites must take responsibility for addressing racial inequities — whether or not any one of us feels personally at fault, we are collectively at fault, we are collectively at fault.

ally at fault, we are collectively responsible for past and present abuses.

There are also several reasons some women may be inhibited about appearing too forceful on the issue of gender bias. Women in science already bear enough of a burden overcoming the retarding forces to their advancement that cause the imbalance. Junior women particularly face the very difficult dilemma of wanting both to be accepted into the club and to change the bylaws. In astronomy, as in most academic pursuits, peer recognition is the most important form of remuneration (and one which affects the more tangible rewards like promotion and salary). Again, most of the senior "peers" are men, so women must feel some sense of risk associated with speaking out on gender issues. Many courageous women have acted forcefully in spite of these risks.

One cannot address the issue of gender balance and affirmative action without confronting the goblin of "special treatment," implying "lower standards." I have yet to meet a woman scientist who wants any such special treatment, nor have I met any that received it. But concerns by professional women that their efforts to level the playing field would be seen as attempts to fix the game loom very large in most discussions

of affirmative action. Unfortunately, opponents use this weapon to taunt women who are succeeding in the face of discrimination and to discourage them from speaking out about gender bias. Again, men have a responsibility to exorcise this specter.

One example of how cooperative action by men and women can bring about major change can be found in the recent experience of the MIT School of Science, which just recently made the front pages of the *Boston Globe* and *New York Times*. In this case the concerted efforts of a group of tenured women faculty, together with the decisive actions of a male dean and several department heads, uncovered serious problems and then addressed them.

Four years ago, a committee on women faculty in the MIT School of Science identified real inequities that explained a deep discontent that had been shared by all the tenured women faculty. (In contrast they found general satisfaction

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If it be not now.

yet it will come:

the readiness is all.

Shakespeare, from Hamlet

~

among their junior female colleagues.) They also found that the fraction of tenured women faculty in science stagnated at MIT for 20 years, during which time the female representation among students soared and most of us thought real progress was being made across the board. They describe the dean's

immediate and substantive actions to correct the most egregious problems, and how profoundly things changed, including a rapid increase in the fraction of tenured women faculty. To quote: "One senior woman faculty described the outcome of this collaboration as 'more progress for women faculty at MIT in one year than was accomplished in the previous decade.' "(The report is available at web.mit.edu/fnl/women/women.html. See also "MIT Women Win Fight Against Bias," STATUS, June 1999.)

The challenge remains to consolidate such successes and multiply them manyfold. Progress must be accelerated, not simply continued. The MIT report notes that even at the recently increased rate of adding tenured women faculty it would take 40 years before 40% of the science ranks were women. And that assumes that the pipeline can support this pace. So our goal must be to drive the system non-linearly, to keep the needle of progress pinned at maximum. This may be different from measuring the Hubble constant and it may even be harder, but surely it is time to rededicate ourselves to the task. ❖

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raises on men who got job offers elsewhere, it simply let the women leave. They might have been expected to leave, anyway, since MIT had made most of them so miserable.

Like most universities facing complaints of bias, MIT at first resisted the women's charges of inequity, and even resisted giving them data they asked for.

But unlike schools that have waited for lawsuits to act, MIT did something rare in academia: the Institute looked at the numbers and admitted it was wrong.

And in a report presented to the faculty [in the March 1999 MIT Faculty Newsletter], MIT's top administrators, all white men, [admitted] they have discriminated against women for years, in ways that are subtle and unintentional but very real.

"I have always believed that contemporary gender discrimination within universities is part reality and part perception," MIT president Charles M. Vest wrote in a letter prefacing the report. "True, but I now understand that reality is by far the greater part of the balance."

MIT has done more. In the four years since the women faculty first suggested there was bias, the Institute has raised women's salaries an average of 20 percent, to equal men's; increased research money and space for women; awarded them key committee seats; and increased the pen-

sions of a handful of retired women to what they would have been paid if the salary inequities had not existed.

It's all because three unhappy women professors happened to compare notes one day.

Women professors compared notes

The story of how these women got MIT to recognize and acknowledge bias offers a portrait of how discrimination works, often so subtly that many women themselves don't believe it exists.

It started in 1994, when MIT told Nancy Hopkins, a prominent DNA researcher, that it would discontinue a course she had designed that was now required for 1,000 students a year.

She had worked for five years to develop the course; in the previous two years, a male professor had joined her in teaching it. The man, MIT

informed her, was going to turn the course into a book and a CD-ROM — without her.

Hopkins drafted a letter to Vest about how she felt women researchers were treated, which she described as her "enough is enough" letter. When Hopkins discussed it with a woman colleague, she asked to sign it, too. They got to talking about their situations, and eventually the discussion expanded to a third tenured woman on the faculty.

They decided to poll every tenured woman in the School of Science — one of five at MIT — to see whether what they had experienced

were individual problems or part of a pattern.

They were surprised to find out how fast they got their answers. Within a day, they had talked to all 15 tenured women (there were 197 tenured men) and agreed that there was a problem and that something had to be done.

True to their fields, they looked first at the data.

The proportion of tenured women on the faculty had not moved beyond eight percent for two decades. There was little hope for change: Only seven women were on the tenure track, compared with 55 men.

Plenty of women were entering science in the first place. In half the six departments in the school of science, there were more women undergraduates than men.

Was child rearing part of the problem? Certainly, childbearing years coincide with the years when most women get tenure.

And, true, of the women with tenure, half had children, which is statistically low.

But that was a minor part of the story. The main part was resources.

Much of the problem had to do with the way MIT paid salaries, requiring professors to raise a portion of their salaries from outside grants. And women were required to raise twice as much in grants as men.

Getting the information the women needed was not without struggle. When they asked for information on space awarded to women, MIT insisted they got the same space as men. But when the group checked the numbers, the women realized that was only because the institute had counted office and lab space for women, but only office space for men.

and firing."

Zernike continued from page 4

Individually, some women said they had sensed discrimination but feared that they would be dismissed as troublemakers or that their work would suffer from the distraction of trying to prove their point.

"These women had devoted their lives to science," Hopkins said. "There was a feeling that if you got into it, you weren't going to last; you'd get too angry."

But the hurdles in getting research money, space, or support were already costing them time. "It takes 50 percent of your time and 90

percent of your psychic energy," Hopkins said. "Time is everything in science. Six months can cost you the Nobel Prize."

Complaints won a 'total convert'

Within a few months, the women presented a report to Robert Birgineau, dean of the School of Science.

"The unequal treatment of women who come to MIT makes it more difficult for them to succeed, causes them to be accorded less recognition when they do, and contributes so substantially to a poor quality of life that these women can actually become negative role models for younger women," the women wrote. In short, they said, they were so

miserable that any young woman looking up at them would think, "Why would I want that?"

All 15 women crowded into his office to present the report. Birgineau, Hopkins said, "became a total convert."

He did his own quick investigation to see if the numbers were correct. (They were.) And he made quick remediation. Immediately, he boosted women's salaries an average of 20 percent and eliminated the requirement that women raise part of their salaries from grants; MIT is moving to eliminate the system for men, as well. He began aggressively recruiting more women faculty.

He also moved to set up a committee that would investigate gender inequities further, as the women faculty had requested. The committee's report, stripped of the most damning stories about individuals, was released to faculty members on the Institute's Web page and in a faculty newsletter. It acknowledges that there is evidence of "subtle differences in the treatment of men and women," "exclusion," and, in some cases, "discrimination against women faculty."

The inequities, the report said, extended to salaries, space, research, and inclusion of women in positions of power. An underrepresentation of women making key decisions had bred male "cronyism" that for women meant "unequal access to the substantial resources of MIT." While junior women faculty were generally supported, their supervisors began to marginalize them as they advanced.

The Institute accepts women in general, according to Molly Potter, a cognitive scientist, "but when it comes to decisions about who gets what, who succeeds, who gets the creamy appointments, who gets the awards that can be

"There was

little hope

for change:

Only seven

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compared with

55 men."

distributed by recommendation or the will of the department head, it's the buddy system. The men were the buddies of the men."

The report dismisses the argument that women didn't succeed because they weren't good enough. "The opposite was undeniably true," it says, noting that 40 percent of the 15 women have been named members of the National Academy of Sciences or the Academy of Arts and Sciences.

MIT has responded, as one woman said, with "more progress in one year than was accomplished in the previous decade."

In addition to salary, space, and resource increases, Birgineau said he expects to have a 40 per-

cent increase in the number of women with tenure next year, bringing the percentage to above 10 for the first time. The institute corrected some pensions, one by \$130,000, the other by \$80,000.

A cynic could argue that the Institute addressed the problems only because it realized it might soon be looking at a lawsuit. The federal government last month filed suit against Stanford, for instance, for not doing enough to aid the progress of women.

But among the women, any cynicism yields to gratitude.

"I was unhappy at MIT for more than a decade," one woman told the committee. "I thought it was the price you paid if you wanted to be a scientist at an elite academic institution.

"After ... the dean responded, my life began to change," she said. "My research blossomed; my funding tripled. Now I love every aspect of my job. It is hard to understand how I survived — or why." •

The following was an invited talk at the Centennial meeting of the American Physical Society in March 1999, in a session called "Patching the Pipeline: Issues and Actions" sponsored jointly by the APS Committee on the Status of Women in Physics and the APS Division of Astrophysics.

The Baltimore Charter and the Status of Women in Astronomy

By Meg Urry

The status of women in astronomy

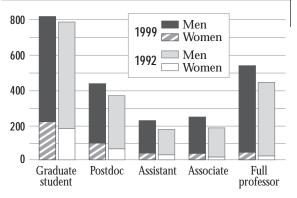
To be a women in physics or astronomy is to feel out of place, consciously or subconsciously. This was especially true when I was just starting out, some 20 years ago. The professors were mostly men, the graduate students were mostly men, speakers

ate students were mostly men, speakers at meetings, prize winners, committee members — all mostly men, sometimes only men. The subliminal message was: women don't belong here, there's no place for you.

Some ten years later, in the early
1990s, after 10-20 years of supposedly
enlightened "non-discriminatory" times,
women still didn't seem to be progressing at the
same rate as men. For a very clear example, I
could look to my own institution, the Space
Telescope Science Institute, which aspires to be
an elite academic institution in the top five or
ten astronomy departments in the U.S. Unlike
Harvard or Caltech or Princeton, however,
STScI had been founded only very recently (to

run the Hubble Space Telescope science program), and so its faculty reflected very recent hiring patterns, not the vestiges of massive hiring of science faculty in the 60s (which is often given as the reason men dominate physics departments). The first STScI staff were hired in 1981, and the

Astronomy graduate students and faculty, 1992 vs. 1999



astronomy "faculty" (a tenure-track completely analogous to University faculty) had grown to more than 30 by 1990, when I was hired, only the second woman.

Thus STScI was a pristine "experiment" illustrating the slower advancement of women in the profession — throughout the 1980s, the percentage of Ph.D.s in astronomy (and physics)

awarded to women was 10-20% (which has been true for the past 100 years!) yet only $\sim 5\%$ of the *newly hired* tenure-track faculty were women. (I'm happy to say this has changed dramatically, because of affirmative steps taken by an enlightened management. There are now seven women out of 42 tenure-track astronomers, or $\sim 17\%$, which is the highest percentage and highest absolute number in any major U.S. astronomy department, and there are

11 women of 76 total faculty, plus another half-dozen Ph.D. women in technical roles. My women colleagues, especially in physics, may be envious of the idea of a dozen female colleagues in the same department, when many universities barely have that many women across all the physical sciences. Having been in both situations, I must say my

present environment is much better, much less stressful, at least for me.)

The 1992 STScI Survey of 32 major U.S. astronomy departments and institutions showed a similar situation throughout the field. (See Schreier, 'Proc. Meeting on the Status of Women in Astronomy,' 1992, and http://www.stsci.edu/stsci/meetings/WiA.) As shown in the bar graph at left, in 1992 the percentage of women in astronomy decreased with rank, from nearly a quarter of the graduate students to less than 5% of the senior faculty. Although the data represented a snapshot of the profession at only one epoch, it was alarming that only one third of the women in elite graduate schools appeared to find postdocs in the same elite institutions, compared with half of the men.

The field of astronomy grew in the 1980s, so the climate was a positive one. Why were women not moving from graduate school to academia at the same rate as men? It certainly wasn't an absence of qualified, interested women — there is a long and glorious tradition of women in astronomy making fundamental contributions. In just the last 100 years, Cecilia Payne-Gaposchkin established that stars consist primarily of hydrogen; Henrietta Leavitt discovered the period-luminosity relation in Cepheid variable stars, a key element of determining the distance scale of the Universe; and Beatrice Tinsley created the field of stellar population synthesis to understand galaxy evolution. Indeed, "women have made most of the funda-

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mental contributions to cosmology in the postwar era," according to Jerry Ostriker, a distinguished professor of astronomy at Princeton University. Astronomy today would be very different without these critical contributions, yet women as a group have not benefitted from the conspicuous successes of their predecessors.

There is considerable evidence that women advance more slowly than men across almost all professions, particularly science, as discussed by Gerald Sonnert and Virginia Valian in the January 1999 issue of STATUS. Dr. Valian summarizes the extensive literature on this phenomenon across academia and the professions in her recent book Why So Slow? The Advancement of Women (1998, MIT Press). She concludes there is no one reason for the gender disparity; rather, that women are held back by the accumulation of many micro-disadvantages, such as tougher evaluations, lack of mentoring, limited access to crucial resources, and exclusion from leadership positions. As just one small example of the latter, the recent statistics from the National Academy of Science are disturbing. Women constitute only 6% of the NAS (132 women, 2067 men), and in the areas of astronomy and physics it is worse: in the last 20 years, an informal count (based upon parsing names) shows 302 men and only 13 women have been elected (4%), and in the last five years, 89 men and only two women (2%) have been elected. The trend is going in the wrong direction.

Studies and statistics clearly show women falling behind in science at all levels — the "leaky pipeline" — and there are many different ideas for what is wrong. The disparity isn't fair, and science undoubtedly suffers from missing half the talent pool. But what to do?

The STScI meeting on women in astronomy

In 1992, we at the Space Telescope Science Institute decided to do something positive to address the apparently low status of women in astronomy. Following a suggestion from Goetz Oertel, the head of AURA, our parent organization, we decided to hold a meeting about the issue. Riccardo Giacconi, then Director of the STScI, supported the idea enthusiastically and

immediately wondered how to "solve the problem" in his characteristic activist fashion. He first looked for an existing solution, some "code of behavior" that would make things right. When he couldn't find one, he suggested we write our own — this was the origin of the "Baltimore Charter," a document that would

describe the positive actions needed to turn things around. It is important to note that these two men were in powerful positions and could make things happen — the meeting, the Charter, and within a few years, a significant increase in the number of women scientists working at STScI.

The 1992 meeting at STScI on The Status of Women in Astronomy was aimed at our "sphere of influence," meaning women in the U.S., at the undergraduate level or beyond (although much of what we discussed, and the Charter itself, applies to minorities as well). More than 220 people attended the meeting, 3/4 women and 1/4 men, roughly 1/3 students, 1/3 postdocs plus junior faculty, and 1/3 senior faculty plus observatory directors and funding agency representatives.

The agenda included formal talks on the history of women in science, the present statistical picture, and reasons for the exclusion of women. These facts and ideas informed the conference participants, who then spent most of their time in small break-out sessions on topics like affirmative action, sexual harassment, and work and family issues, writing reports that were the foundation of the Baltimore Charter. The consensus was that there was no one problem inhibiting the success of women in astronomy. It was certainly not a lack of interest, lack of ability, or even the formal lack of opportunity. Instead,

there was a complex set of micro-problems, including overt discouragement of women; perception of women as less talented, less capable, less authoritative; lack of faculty/role models; frustration at lack of advancement; physical safety; family issues (logistical difficulties more likely to affect the women); sexual harassment; and "climate" (language, pictures). Not all women are affected by all of these factors, and any one woman might be affected by a few or none, but the cumulative effect is the "handicapping" of women in the astronomy horse race.

Notable women of science



Cecilia Payne



Henrietta Leavitt



Beatrice Tinsley

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The Baltimore Charter (see insert)

The purpose of the Baltimore Charter was to suggest concrete action (not just griping) to improve the status of women in astronomy. It represents the consensus of many views, with input from a significant fraction of the active astronomical community. (In addition to fundamental contributions from the Meeting participants, we also solicited comments and suggestions



Poster to advertise 1992 STScI meeting on women in astronomy from additional leaders in the field.) The Charter was completed in the months after the meeting by Sheila Tobias, Laura Danly, Ethan Schreier (Associate Director of STScI), Riccardo Giacconi, and myself. It was released in June 1993 at the semi-annual meeting of the American Astronomical Society, receiving a lot of attention from the national press and popular science publications. In subsequent months the Baltimore Charter and/or its goals were endorsed by the AAS, NASA, NSF,

AURA, and several prominent universities. Hundreds of posters were distributed to observatories and universities, where one hopes that young women and men found them encouraging and supportive where needed.

The Charter states five basic premises and briefly justifies them (see accompanying document). A key assertion is that positive action is required to change the status quo, hence the five major recommendations of the Charter. The most important of these, and the most controversial, is the statement that "Affirmative action is a necessary part of the solution." This means establishing, publicizing, and honoring objective standards for any evaluation (hiring, prizes, etc.); bringing women into the evaluation process; encouraging men to take responsibility for the success of women; and monitoring progress through demographic data. Other recommendations address family issues, sexual harassment, climate, and physical safety. The Charter ends with a call to action, to all our colleagues, to facilitate the full participation of women.

After the Baltimore Charter: Changes in U.S. astronomy

There was no mass movement to endorse the Baltimore Charter or to implement its recommendations widely, although it appears to have helped some individual women, especially those isolated in small departments. The most profound impact, however, was probably the meeting itself — its effect on the 220 people who attended. The experience of listening, learning, thinking positively, reinforcing one another, and forming a consensus for action, more than the

actual Charter words, affected many participants profoundly. Students felt fortified in their ambitions, junior astronomers felt hopeful and determined, and senior astronomers and officials felt renewed determination to make change. More than two hundred highly informed and enthusiastic people dispersed from the meeting throughout American astronomy, into positions of power from which *they* made change happen.

Or so it appears. For the APS talk in Atlanta, we updated the STScI statistics on women in astronomy, re-surveying the same top institutions as in 1992. The preliminary results are encouraging. There are two major changes in the past seven years, during which the field grew by roughly 25% (see bar graph, page 6):

- •The progress of women and men from graduate school to postdoc positions is more nearly equal, with about half making this transition. (In 1992, this fraction was true for men; only a third of women moved on to postdocs in the same top institutions.)
- Promotions from associate professor to full professor (well-sampled in this seven-year period) are at least as likely for women as for men, within the statistics (nearly 100% throughput).

A full report on the new statistics will appear in the next issue of STATUS, by which time we hope to receive missing data from the University of New Mexico. We also intend to make the database fully accessible on the Web within the next few months. (N.B. The AAS has now undertaken a similar but much larger survey of the profession, the results of which should be available on the Web within a year.)

Ten things you can do

Clearly the field of astronomy is changing. But even with *equal* progress of men and women (and we're not there yet), change at the top (most astronomy faculty are full professors) will take decades, so it's imperative to maintain the momentum. In the spirit of the Baltimore Charter, I close with a list of ten positive steps everyone can take:

1. Do what you can do. No one person can solve every problem, or even one problem, but we all have our own sphere of influence. Start locally, and take on some aspect you're particularly interested in. Be careful not to pass the buck! For example, if you are a University professor, concentrate on what you can do for undergraduate and graduate students. (Even if you think it all starts in kindergarden, leave that problem for someone else.) Mentor women, invite women scientists to give colloquia, conduct exit interviews when students or postdocs leave your department, encourage support

Meeting summary provided by Meg Urry:

The 1992 STScI Meeting on the Status of Women in Astronomy

www.stsci.edu/stsci/meetings/WiA

Several outstanding talks set the stage for deliberations on the Baltimore Charter. Prof. Londa Schiebinger (Penn State) described the sustained presence of women in science over the last few centuries, completely dispelling the myth that there weren't enough women entering science. For example, 14% of the practicing astronomers in 18th century Germany were women, compared with 3% today. She also described a long tradition of exclusion from prestigious institutions such as universities and academies (and originally, monasteries) — and yet the enormous successes of women despite such disadvantages. (One thinks of Sophie Germain, solving mathematical problems her famous male colleagues could not, all without having access to the mathematical literature because she hadn't the proper professional credentials.)

Schiebinger also described the long history of "anti-female" research ostensibly proving women's intellectual inferiority and unsuitability for science. An ironic example is the prominent Harvard historian of science Edward Clark, who, at the same time and in the same place as Harvard women were changing the face of astronomy in the late 19th century, was asserting that women's ovaries would shrink in proportion to their level of intellectual activity. Presumably he established this correlation via autopsies of women, intellectual and dolt alike. He must not have known about some of the women Londa Schiebinger described in her talk, such as Laura Bassi, a prominent 18th century Italian physicist who had 12 children! Most similar research, such as craniology or the notion of arrested evolution, has long since been discredited, but some persists today (the notion of female hormones killing math ability, for example).

Sheila Tobias, noted expert on science education, then explained the political and philosophical underpinnings of the exclusion of women from science, notably the "Catch-22" correspondence among temperament, role and status. Women are seen as emotional and nurturing, and so are thought to be suited for roles like nurse, mother, or scientific

assistant, which are given low status. Men are seen as strong and decisive, and so hold the reins of government and business, which they designate as high status activities. This is the status quo, and those in power have no incentive to change it (indeed, every incentive to retain it!).

Tobias went on to describe the intense pressure on women to conform to the male model, and the attempts of some women to distance themselves from other women — the "men, women, and me" phenomenon. She then listed four persistent myths of science:

- Elitism: That science, and the scientific professions, are the best they can possibly be
 — there is no room for improvement.
- 2. *Predestinarianism*: That one is born to be a scientist, or not. (And mysteriously, more men are born to be scientists, one presumes.)
- 3. The "calling": That science is an almost religious activity, requiring total dedication and subordination of all other distractions. (Family? Vacation? Sex? "Not now, dear, I have to run my experiment.")
- 4. *Solipsism:* That others are just like me, that my experience is the basis for all truth, if you just do what I did (and have the same attitudes), you'll succeed. Thus does mentoring fail for any who are not clones of the mentor! Understanding that these are indeed myths is one giant step toward change.

Perhaps the most significant thing Sheila Tobias said — for some, the epiphany from the entire meeting — was that one should concentrate on outcome. We don't have to explain why women are falling behind, much less figure out the solution — we just have to hold the system accountable for the outcome. If 20% of the Ph.D.s in astronomy are women, then 20% of the postdocs and assistant professors should be women, unless someone (else!) can give an excellent, universally applicable reason why. In any individual case for hiring, promotion, tenure, or awards, there is always an explanation for the individual outcome, but we don't need to get bogged down in those details. Instead, ask: what is the aggregate outcome? Of 100 tenure cases, are women and men promoted at the same rate? Of 100 prizes from the AAS, have the appropriate proportion been awarded to women? Of 100 speakers at a conference, is an appropriate fraction female? Too often, the answer is no.

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groups — whatever it takes in your particular situation. There is no one answer and no simple formula, but everyone can contribute.

2. Mentor. The research is clear: mentoring makes an enormous difference. Watch out for those coming up behind you, support your peers, and stick up for those ahead of you. Encourage discussion groups, listservs, special dorms, the CSWP and CSWA. Keep a list of bright women scientists — people are always

The Ivory Tower

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looking for suggestions for talks, prizes, refereeing, committees, etc. And there is no reason women should bear the brunt of the mentoring burden — men can be effective if they make the effort.

- 3. Maintain a positive climate. Say he/she, make sure women are pictured in publicity brochures, get rid of "pinup" images, avoid male-dominant language, make clear that behavior contributing to a hostile climate is unacceptable.
- 4. Ask questions. Hold your colleagues accountable: ask how many women are included in recruitment for jobs, prizes, committees, APS fellows, NAS, etc. Ask how many women are giving science talks at the next meeting you organize or attend. The Special Symposia at the APS Centennial meeting were filled with esteemed scientists giving talks on fascinating topics, but if you exclude the "sociological" sessions on women or

minorities in science, I counted only one woman speaker of perhaps 100 or more men.

- 5. Affirm, don't defend. You don't have to address other people's agendas or their definitions or misconceptions (e.g., "quotas," "lower standards," "reverse discrimination"). Instead, emphasize that standards should never be lowered, that it is the evaluations, the rankings, that are subjective and therefore flawed. The goal is not to "help" women but to equalize opportunity.
- 6. *Involve others*. Tell them stories yours, and what you know. We are the products of our individual histories, so sharing experiences gives us new insights. Talk to students, give an extra talk when invited to give a colloquium, offer to meet with women students. When talking to senior faculty, ask how many women students there

are, what the retention rate is, how many women faculty there are, etc. Small efforts multiplied by many people can have a significant impact.

- 7. Be goal/outcome oriented. Don't get bogged down in the whys, or which is the major problem, or what is the (perfect) solution. When you talk to your Department Chair or division head, don't let them sidetrack you with their theory of why women "fall behind" or with their story of all their heroic efforts on behalf of women in the past. Ask about the outcome. You (individually) are not responsible for the solution; you are raising the question, and the people in power (mostly men) are responsible for the solution. Without men we cannot effect significant change in our scientific institutions because they hold the reins of power.
- 8. Admit your own subjectivity. Examine your own perceptions is there anyone, male or female, who has escaped the indoctrination of societal attitudes? Recognize that many of us automatically "give authority" more easily to men (speaker/teacher/colleague), whereas women start with a deficit (we doubt their abilities) until they prove them.
- 9. Listen. The concerns of young women today are not what they were 10 years ago, much less 40 years ago. As in all of life, if we extrapolate from our own personal experiences, we can help only those who are just like us. (As Sheila Tobias explained, this solipsistic approach contributes to the continuing exclusion of women from male-dominated institutions.) Many of us have argued for affirmative action, and have seen it help women move forward. But some young women object to "affirmative action" because they have bought into the notion that it gives preferences to women and therefore devalues their worth. They don't want the attached stigma. So listen to men and women with diverse experiences and views ultimately, there has to be "room at the Inn" for all these different outlooks.
- 10. Be pessimistic and optimistic. There will be (there is!) a backlash, but many things are far better than they were 30, 20, even 10 years ago. Discrimination has gone underground it is no longer overt, and although subtle barriers are harder to fight, they are also more transparent filters. There are more women in all fields, there is greater acceptance of women, and there is greater support for working families. Remember the claim of the Baltimore Charter: "Improving the situtation of women in astronomy will benefit [all] astronomers," men as well as women. ❖

This article is reprinted with permission from the January/February 1999 issue of Academe, the Journal of the American Association of University Professors. Ernst Benjamin, Ph.D., is Associate General Secretary at the AAUP offices in Washington DC. This report is available from the AAUP website at http://www.aaup.org/Wrepup.htm.

Disparities in the Salaries and Appointments of Academic Women and Men

An Update of a 1988 Report of the American Association of University Professors Committee W on the Status of Women in the Academic Profession

By Ernst Benjamin



Ernst Benjamin

ubstantial disparities in salary, rank, and tenure between male and female faculty persist despite the increasing proportion of women in the academic profession. In 1988 Academe published an excerpt from the annual report of Mary Gray, who was then chair of Committee W on the Status

of Women in the Academic Profession, exploring this concern. Gray demonstrated that salary disparities between faculty men and women had increased substantially between 1975, when Committee Z on the Economic Status of the Profession began to collect gender-based data, and 1988. She noted also that, though women were gaining access to academic appointments,

they were disproportionately relegated to nontenure-track positions. The following 1998 update of her report has been prepared at the request of Committee W.

Table 1 incorporates both Gray's comparison of 1975 to 1988 and current (1998) data. Between 1975 and 1988, salary gender disparities increased in all but one of the twenty combinations of institution and rank. Happily, the salary disparities have declined in eighteen of the twenty categories between 1988 and 1998. Unhappily, the disparities not only remain substantial but are greater in 1998 than in 1975 for half the categories, including "all-institution" average salaries for full, associate, and assistant professors.

These gender disparities are due, in part, to the increasing relative participation of women in the profession. That is, since a greater proportion of women than men are new entrants, women have less average seniority in rank. But this fact does not adequately account for the increased disparities even within rank, particularly for assistant professors, for whom time in rank is generally limited, and associate professors, among whom women often have longer time in rank due to nonpromotion.

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Chris Britt Copley News Services

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The increasing gender disparity in each of the "all-institution" professorial ranks and in most ranks at Category I and IIA institutions points to more fundamental problems. As female participation in the profession increases, women remain more likely than men to obtain appointments in lower-paying types of institutions and disciplines. Indeed, even controlling for category of institution, gender disparities continue and in some cases have increased, because women are more often found in those specific institutions (and disciplines) that pay lower salaries.

If controlling for rank, category of institution, and discipline accounts for a substantial proportion of the gender disparity, it also masks it. The largest salary disadvantages for academic

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Table 1 Difference between men's and women's Percentage point increase or decrease in men's advantage, 1975 to 1998 academic salaries By rank and type of institution for selected Positive (negative) values mean men's advantage years, as a percentage of men's salaries increased (decreased) over the 23-year interval. 5 14% All institutions All institutions 3.3 Category I (Doctoral) Category I -0.8 (Doctoral) Category IIA (Master's) **Professor** Category IIA Professor 2.4 1975 Category IIB (Bachelor's) Category IIB (Bachelor's) -0.9 1988 Category III Category III 1998 -3.0 (Two-year with rank) (Two-year with rank) All institutions All institutions 3.4 Category I (Doctoral) Category I 1.5 (Doctoral) Associate Category IIA (Master's) Category IIA (Master's) **Associate** 3.1 Category IIB Category IIB -2.8 (Bachelor's) Category III Category III (Two-year with rank) 0.1% (Two-year with rank) All institutions All institutions 2.6 Category I (Doctoral) Category I (Doctoral) 2.1 Assistant Category IIA **Assistant** Category IIA 1.2 (Master's) (Master's) Category IIB (Bachelor's) Category IIB (Bachelor's) -2.4 Category III (Two-year with rank) Category III (Two-year with rank) 4.2 All institutions All institutions -0.7 Category I Category I 0.9 (Doctoral) Category IIA (Master's) Instructor Category IIA Instructor -1.4 (Master's) Category IIB (Bachelor's) Category IIB (Bachelor's) -3.6 Category III (Two-year with rank) Category III (Two-year with rank) -1.4

NOTE: Categories correspond to those used in the AAUP's annual salary survey. SOURCE: AAUP Salary Surveys for 1974-75, 1987-88 and 1997-98

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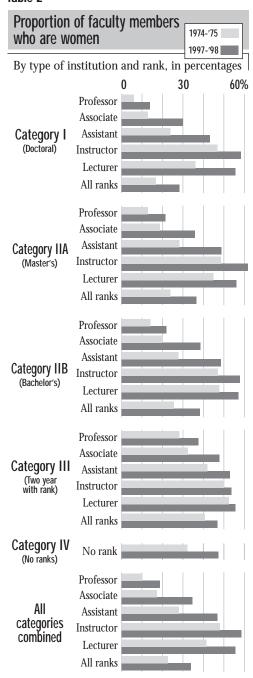
women reflect precisely their relegation to less remunerative appointments. As Table 2 shows, although women have increased their proportion of appointments to professorial positions, disproportionate numbers of women continue to occupy positions as lecturers and instructors across all types of institutions. Among those women who do attain professorial positions, relatively few gain promotion to full professorship. The relatively greater proportion of women in associate professor positions, on the other hand, reflects in part the glass ceiling. Similarly, women are disproportionately more likely to hold positions in community colleges and less likely to attain positions in research universities. Such disparities by type of institution have diminished, but remain substantial.

Moreover, as Table 3 shows, the gender disparity in type of appointment has actually increased in significant respects. The increase in the female proportion of part-time faculty is greater than the increase in the female proportion of full-time positions. Similarly, although the proportion of tenured faculty who are women has grown from 18 to 26 percent, the proportion of female non-tenure-track faculty has grown even more, from 34 to 45 percent. The increasing entry of women into the profession has so far exceeded the improvement in the positions women attain that the proportion of all female faculty who are tenured has actually declined from 24 to 20 percent.

Perhaps the most significant improvement in the status of academic women is the increase (from 31 to 43 percent) in the proportion of women among those holding probationary tenure-track positions. This increase results, however, from a relatively small increase in the number of such women combined with a substantial decline in the number of men in these probationary positions and a decline in the number of such positions overall. A better, albeit more ominous, indicator of the future of women in the profession is manifest in the observation that the proportion of all female faculty who hold probationary tenure-track positions has actually declined by almost half, from 22 to 12 percent.

These data suggest that women and men are responding differently to a general decline in the quality of professional opportunities in academe. The continuing expansion in the number of faculty is attributable almost entirely to increasing female participation. Male entry is barely sufficient to sustain current participation rates, and the number of males in probationary tenure-track positions has declined precipitously. Simply stated, fewer men are finding their professional

Table 2



SOURCE: AAUP salary surveys for 1974-'75 and 1997-'98

futures in academe, whereas female participation continues to increase despite the declining terms and conditions of faculty employment.

This might suggest that gender disparities in academe are largely the residual effects of a disparity in opportunities between the current and previous generations. New faculty, male or female, compete for a smaller proportion of fulltime, tenure-track positions at the most attrac-

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tive institutions than did faculty in the previous generation. Although this difference between generations certainly exists, it does not adequately explain why women are more likely than men to accept reduced terms and conditions of employment.

Some argue that women prefer part-time employment, but the evidence does not support that proposition. On the contrary, almost two-thirds of women teaching liberal arts courses part-time who responded to the National Survey of Postsecondary Faculty reported that they taught part-time because full-time positions were not available. The survey would, however, sup-

Table 3

Distribution of faculty by full- or part-time status, tenure status and gender, 1975(6)* and 1995

% of N of all N of % of all faculty female faculty category faculty All full-time faculty 68.7 1977 435,000 107,445 24.7 62.2 190,672 1995 550,822 58.1 34.6 50.3 % Change 26.6 77.5 Tenured faculty 23.9 227,562 35.9 41,259 1977 18.1 30.0 74,045 19.5 284,870 26.0 1995 % Change 25.2 79.5 Nontenured faculty on tenure-track 1977 126,465 20.0 38,680 30.6 22.4 1995 110,311 11.6 46,982 42.6 12.4 % Change -12.821.5 Non-tenure-track faculty 1977 81,010 12.8 27,398 33.8 15.9 1995 155,641 16.4 69,645 44.7 18.4 % Change 92.1 154.2 All part-time faculty 199,139 37.9 1977 31.4 65,410 32.8 1995 386,829 40.8 181,962 47.0 48.0 % Change 94.3 178.2 All full-time and part-time faculty 1977 633,210 100 172,657 27.3 100 1995 948,035 100 379,050 40.0 100 % Change 49.7 119.5

*Shift from 1975 to 1976 due to lack of available data. SOURCE: U.S. Department of Education, National Center for Education Statistics, Fall Staff in Postsecondary Institutions, 1993 and 1995

port the argument that a lesser proportion of women than men have the advanced degrees necessary for more advanced appointments. Part-time and community college faculty are both disproportionately more likely to be women and less likely to have advanced degrees. But, of course, several factors combine to create a seeming "Ph.D. glut" that discourages many faculty from the pursuit of full professional qualifications. These factors include the shortage of four-year, tenure-track positions resulting from the increased use of non-tenure-track, part-time, and graduate-assistant positions in the four-year universities. They also include the tendency of community colleges to hire faculty without advanced degrees, even when

candidates with advanced degrees are available.

Any comprehensive explanation of why women are more likely than men to accept less attractive professional opportunities must in the end recognize the social practices that differentiate the market situation of women and men. Women are often less mobile and have fewer professional alternatives outside the academy. They are also far more often constrained by child-rearing responsibilities than men and more likely to bear the burden imposed by the lack of adequate and affordable child care. As long as society imposes these relative disadvantages on women, universities can successfully offer women terms of employment that would not be acceptable to similar numbers of similarly qualified men. However, as alternative opportunities for women increase, either the terms of employment must improve or the quality of recruits, male and female, will decline. Accordingly, even to the extent that disparities between male and female appointments are attributable to an overall decline in the terms of academic employment over the previous twenty-five years, continuation of this decline does not augur well for women, men, or the profession. ❖

This insider's view of sexual harassment in a college environment comes from a full professor of astronomy at a prestigious U.S. university. The author preferred to publish under his own name but agreed to conceal his identity to protect the other participants, who were not consulted about this article, and his university, which is likely no better and no worse than any other high-profile institution.

Sexual Harassment: One (Male) Scientist's Journey

ost scientists I know are attracted to the profession by its endless opportunities for figuring things out — teasing simple relationships out of complex data, exploring the wondrous connection between human mathematics and the natural world, contributing to a rational model of the Universe. Most scientists I know also happen to be better at these pursuits than they are at interpersonal relationships. We call this a selection effect.

As with selection effects in any observational sample, problems can ensue. We can derive simple relationships that are false, construct models that do not comport with the reality, and develop artificially rational rules that have little relationship to how the real Universe works. Having spent much of my time as a faculty member involved, both officially and unofficially, with sexual harassment laws, procedures, and situations, I am sobered by the stunning inapplicability of my natural mode of thought in addressing issues involving sex, power, and people. Especially people.

Chapter 1: A professor exploits his position

Typical of the Ivy League. Hire some guy (usually) who has never stood in front of a class in his life and tell him to go and teach a "Physics for Poets" course to 60 people, each of whom will pay \$2100 for the privilege of listening to him for two hours a week. Provide no syllabus, book suggestion, tips on teaching (let alone mentoring) or, in the end, collegial feedback. Only the advice that he shouldn't spend too much time on it at the expense of his research.

Come mid-semester, the young turk needs to give an exam. Again, no advice, except sarcastic warnings about the lame excuses to expect from students wanting to duck it. Indeed, he gets a call from one student who claims his dentist only has office hours on Monday evenings (the exam date). Grandmothers drop like flies. Then he gets a call from one of the more attractive students in the class (yes, he has noticed): "My husband has just been murdered in California and I'll have to miss the exam." Pause. Does he adopt the (recommended) jaundiced view and counter with a sarcastic quip, or hope that it is

true (hope that it is true?) and be the sympathetic teacher. He opts for the latter — not battle-hardened just yet.

It is true.

After a couple of weeks the student is back in class and asks for help in catching up, but she can't come to office hours because she works all day. So he volunteers to meet her at her job (near his apartment) to give her extra help. Fade-out, fade-in. By second semester, he's sleeping with her, STScl Graphics and, yes, she is still in the class. Could there be a clearer case for prosecution? This incident occurred more than twenty years ago before sexual harassment statutes existed (and when elite institutions had far less interest in teaching undergraduates). Is it less common today? Should there be absolute rules against stu-

Chapter 2: A victim unwilling to seek redress

A Chairperson, several years into his term, receives one of the graduate students in his department who asks for a closed-door discussion. In some of the office shuffling that occurs about once per semester, she has just been assigned an office mate with whom she has a problem.

"Oh, what's the difficulty?"

dent/teacher relationships?

He, another graduate student, appears to have an unwonted (and unwanted) level of interest in socializing.

"Such as?"

Well, constant phone calls at home and persistent opportuning in the office.

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"This is quite serious."

With further probing, it turns out to be more serious, indeed. He recently offered her a ride home, locked the doors, drove to an undesirable neighborhood and verbally threatened her unless she succumbed to his advances. She escaped unharmed, but just doesn't want to share the office with him.

This behavior cannot be allowed to go unchallenged. It is not technically what the law describes as sexual harassment, but it is both a federal and a state crime. It is clear that such a person cannot be allowed to remain in the program.

"Oh, no, I just want to change offices."

Two hours of pleading, lectures on social responsibility and consideration of the common good, discussion of possible extralegal approaches to the matter — none of it has any effect. A change of office must be the end of it.

Of course this request is granted. But what is next? The discussion is cloaked in a blanket of confidentiality. Approaching the attacker, his advisor, or anyone else would breach that confidentiality and, quite likely, further involve the student in an issue she wishes to put behind her. Failure to act could lead to much more serious consequences, although the complainant is confident it will not.

What is the responsible course of action for the Chair?

Chapter 3: It's not only men

A faculty member receives a phone call from a woman student in a different division of the university who has been referred to him by a friend. She wishes to have a meeting to discuss a pattern of verbal harassment in her program, orchestrated by a woman professor, but involving others as well.

The meeting is arranged. It consists of a detailed recital of the alleged harassment including, after class and in front of other students, discussion of pubic hair and coke cans. Yes, this was at the time of the Clarence Thomas Senate hearings. Copycat crime or serious self-delusion?

The student is clearly distraught and something must be done. The faculty member meets with the school's Associate Dean, then with the Dean, and goes over their (thorough and repeated) investigations of the complaints. He meets again with the student, meets the University EEO Officer (a lawyer who also runs the Sexual Harassment Panel), meets with the student again ... and again, and again. New incidents are related. The complaints multiply, the meetings multiply, the flat denials by the female faculty member multiply. Months, then years, go by.

The mediating faculty member becomes largely convinced the charges are false, but fails in all attempts to ameliorate the student's suffering. Suggestions for counseling go unheeded. Her demands escalate. She begins attempts to sue the university. More meetings, this time with university Legal Counsel. The (female) lawyer basically isn't interested — the university will win and has a lot more money than she does. But they don't want false accusations in the papers, so yes, keep mediating. Where are the good guys and the bad guys in this story?

Chapter 4: The professor as victim

A student shows up at a young professor's office hours.

"This just has to stop."

"What has to stop?"

Delivered flatly: "Everyone in the class knows we are having an affair."

"Everyone except me." A poorly timed attempt at humor.

"What are you going to do about it?"

"What would you like me to do?"

There follows a painful half-hour in which the student details the particulars of the alleged affair's advertisement. The faculty member patiently attempts to understand what he can do to alleviate the student's discomfort over what, as far as he is concerned, is a figment of the student's imagination. He had never seen the student outside of class, and this is her first visit to his office hours. Not one of his better days.

But it's not the only bad day, because three days later she is back with more complaints. And later with more ... and more. Then, sometime later: "I saw you on the street downtown at 7 p.m. on Friday." Ah, this is what stalking is about.

And this is harassment. The professor does not lodge a complaint, concerned with the possible consequences for the student.

Or is he concerned that the sexual harassment hierarchy will not believe his denials? He has recently seen "Oleana," and regards the charges in that play as ambiguous. Is he actually completely blameless?

Policies and laws

All true stories, and but a small fraction of the true stories in the life of any university. The stories are not, of course, a statistically representative sample; a large majority of such cases involve a senior male and a lower-ranking female. Some of this majority, although by no means all, are easier to resolve, in the sense that the formal definitions of the law are straightforward to apply, and sanctions follow as warranted. But whether the cases are classic or confused, the

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behavior they represent creates threats to physical, psychological, and collegial well-being that are wholly inimical to a productive working environment. How do we create perfectly safe and civil workplaces for all employees?

We don't. So, then, how do we ameliorate the lack of safety and arrest the incivility? Memos from the Provost, convocation speeches by the chaplain, sensitivity training sessions for Department Chairs, and mentoring for graduate student TAs all have their place and may help. To date, however, we have not created successful utopias using edicts or religion or psychology or education. The best attempts at social harmonization we have created are based on a society of laws.

The brief vignettes above were each rich in complexities space does not allow me to describe (e.g., one of the accusations in Chapter 4 concerned the fact that the professor, having finished writing a line at the top of the blackboard, would tuck in his shirt — an act interpreted by the student as a overtly suggestive thrust for his genitals). The law is a relatively blunt instrument with which to untangle these complexities and, indeed, in each of these cases, its full force in court was never brought to bear. But the acknowledgement by our society that sexual harassment exists by enshrining the concept in civil law represents enormous progress.

For example, most universities used to have specific anti-fraternization policies, and many still do. Some prohibit sexual relations between any faculty member and any student, some just between a faculty member and his or her own students. In my view, such rules are naive and unenforceable, although I recognize they may provide useful guidance for unsophisticated (and/or unthoughtful) new faculty and students. For students under the age of consent, anti-fraternization rules are merely redundant with state laws, which would take precedence in the case of a complaint. In the absence of sexual harassment law, they would, perhaps, offer some needed protection to students. They would not, however, eliminate such relationships, and they would not offer true, state-sanctioned legal protection. Current statutes make things much clearer.

First, sexual harassment protection is enshrined in civil law, outside of the university's control. Second, it makes clear where the onus lies: with the person in authority (in this case, the faculty member or TA), if he or she engages in either quid pro quo harassment ("sex for grades") or creates by his or her actions a "hostile environment" (which is by now rather carefully defined in case law). The student has auto-

matic standing to bring a charge if he or she feels harmed. The university's complaints process must acknowledge this law, and the institution is liable for state and federal sanction if they ignore it (as with other equal opportunity law). Thus, the legal situation for a faculty member who initiates (or simply participates) in a sexual relationship with a student is transparent. If the student is aggrieved, either during or after the relationship, the faculty member is presumed responsible.

What of the situation when a student is justly aggrieved but chooses not to take action? I have encountered this many times, and early in my involvement with these issues, I was passionate in my attempts to push for a complaint. I still believe it usually is the socially responsible thing to do. But I have come to understand that each individual has his or her own balance between social responsibility and self-preservation, and that this balance must be respected in all but the most extreme circumstances.

And what of the other two incidents, in which the charges might well have been fabricated? In each case, the student is genuinely distraught and therefore, by definition, needs help. It might well be, however, that a faculty member, or even a trained sexual harassment counselor, are ill equipped to ameliorate the student's difficulties. The acknowledgement of a *real* phenomenon we label sexual harassment does not mean that this label is appropriate for all interpersonal disputes or internal discomfiture.

Gray areas and remedies

My defense of the current legal reality may well have lost a portion of the readership. After all, as I have admitted, universities do generally have large and well-paid legal staffs, which can be used to further institutional interests rather than to support the victims of sexual harassment; doesn't this eviscerate the protection the law provides? At one time, perhaps, but not, in my experience, today.

In the past decade, I have seen no case in which the law was clearly violated and the perpetrator escaped sanction. The key adverb in the preceding sentence, however, is "clearly." The cases are often, very often, not clear. I have encountered instances in which charges were completely fabricated, although these are rare. I have also encountered cases in which guilt was clear, and swift and appropriate action was taken. However, the majority of the cases I have seen and heard of are messy. While it should not, I suppose, be surprising that scientific standards of proof don't work very well in human

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relations, it can be frustrating, depressing, even infuriating.

The best defense against messes, in my view, includes the following:

All involved should have a clear understanding of the relevant law and institutional policies (something I frequently find woefully lacking amongst all parties). Formal orientation sessions for new students and for new faculty exist at my university and can be helpful.

The institution should have an effective, legally well informed, and strictly confidential set of procedures to handle complaints.

Complainants should recognize the implications for the common good of their decisions to act (or, more often, not to act).

Those seeking a painful, frustrating, but occasionally rewarding avocation should become involved in the process of building healthy, civil work environments through involvement as sexual harassment advisors. I began my tenure on my university's Sexual Harassment Panel with a missionary zeal. I had seen sexual harassment in action, I knew what it did to people, and I would help root it out. Ten years later, while equally committed to this ideal, I have a much greater recognition of the complexity of the individual situations and the difficulty of achieving the goal.

I will never forget an apparently classic case in another department of "grades for sex" involving a prominent professor and an undergraduate student. I took time to listen to both sides, although the legal process was already in full swing. I was summoned to the University President's office. The President was a lawyer, and the facts were clear to him: academic dishonesty on the part of the student and gross ethical lapses on the part of the faculty member. Both must be immediately dismissed, privately if possible, but publicly if necessary — that would show the University's resolve in dealing with such matters.

It was a defining moment for me. I had talked to both parties. I could see the ambiguities, ambiguities amplified by guilt, lust, concern for the other, defense of the self — humanity.

In the end, I "won" the day (although I realize not all my readers will agree with this assessment). No one was dismissed. The final result was a student who graduated and a faculty member who was severely punished, but not academically destroyed. I have, of necessity, left out many details which unfairly deprives the reader of the full set of information I had in reaching a decision on how to argue this case. But I am reasonably confident that justice was served. It was messy. My initial instinct was, like the President's,

to act — but to what end? Untempered justice and a rigorous application of the University's honor code would have left two lives in ruins. The law is a critical tool in ending harassment, but wisdom is essential in its application.

Endgames

One might well argue that this (male) call for "wisdom" is code for diffusing responsibility for illegal and unethical actions, a way to shift blame, redefine the problem, preserve the current power relationships between men and women. I might even have argued this twenty years ago. But now, as a consequence of my direct, long-standing involvement with this issue, I am a far sadder and, just possibly, a slightly wiser participant. Sadder, because, despite clear progress in re-making laws and institutions so that they treat women more equitably, inequities persist and many resist real change. Slightly wiser? Well, sobered by experience, at least.

It is perhaps appropriate that I end by revealing the outcomes of the opening vignettes:

Chapter 1. The woman student was eight years older than the faculty member. She received a lower grade in the second semester of the course than in the first (owing mostly to a heavier daytime workload), and ultimately received her bachelor's degree.

Chapter 2. Both students, much later, left the field in which they were pursuing advanced degrees, for reasons unrelated to the incident recorded here.

Chapter 3. It is probable, though not established, that the charges were fabricated. The student involved ultimately got the advanced degree for which she was registered; the professor remains on the faculty.

Chapter 4. The professor was the victim, the notion of an affair wholly fabricated. Stalking incidents continued for over a year, and then faded away. The student graduated some time later.

In the interest of full disclosure, the male protagonist in each chapter (the young turk, the Chairperson, the consulting faculty member, and the harassed) is the author, who served on his university's Sexual Harassment Panel for ten years and who has just celebrated his twentieth anniversary with the woman in Chapter 1.

Notes From A Life

Contributions from our readers

re've been hearing lots of little quips and stories — in the halls, at conferences, through e-mail — that capture in small ways daily life as a woman in science. These real events are presented here, as anonymous one-liners, to stimulate thought and productive discussions. We welcome your own "Notes" for publication in future issues of STATUS.

I am a female astronomer listening to a talk at a national conference. The speaker finishes and begins taking questions. I raise my hand right away. The Session Chair knows me and knows I am an expert in the area being discussed, yet he takes questions from five men in the room, all of whom raised their hands after mine. The questions session ends and I am never called upon.

I am at a job interview at a prestigious astronomy institution. One of my male interviewers looks at my ring finger and asks: "Is your husband also in astronomy?"

At a conference I approach two male colleagues in my field, wanting to introduce myself to the senior astronomer whose work closely parallels mine. I hope to join their conversation about a science issue with which I am very familiar. After continuing their conversation for a few minutes, the senior astronomer finally turns from his counterpart and addresses me, saying, "Ah, but we are boring this sweet young girl. What can I do for you, dear?"

My coworker discreetly discloses to me that she is dating our boss. He has direct influence on our promotions, job assignments and our salary raises.

I am a female panelist at a TAC meeting for a major telescope. During a proposal swap, I approach a senior male astronomer with several proposals to be reviewed. He accepts the proposals without noting their nature and states that he will review them momentarily. As male astronomers approach him after me he proceeds to analyze and discuss their proposals on the spot. Two hours later he begins to review my proposals.

I have just passed my Ph.D. oral exam, a follow-up to the written exam which was taken days earlier. A well-intentioned senior male faculty member approaches me with a handshake and remarks, "I am very proud of your accomplishment, knowing how hard astronomy and physics is, especially for a woman ..."

A new chair has been hired for our Physics and Astronomy Department.

Three of the forty faculty members are women. He addresses his very first faculty memo to "Dear Gentlemen ..."

I participate in a research group that has a male lead and both male and female members. I have established a visual cue with one of my male coworkers that when I make a point or ask a question that is ignored or downplayed by our lead, my male counterpart will wait momentarily then ask the same question or repeat the comment. Invariably, the male lead replies with "Good question..." or "Good point made..."

My workplace obviously missed the point when they changed National Take Your Daughter to Work Day to National Take Your Child to Work Day.

Send your "Notes" to cmu@stsci.edu or frattare@stsci.edu



Well known author (Fear of Flying, 1973) and poet since the early 1970's, Erica Jong has delighted audiences with her quick wit and honest views. In this article, Ms. Jong turns the tables on the literary world refuting the Modern Library list of 100 best novels. This article is reprinted with permission from the November 16, 1998 issue of The Nation magazine (http://www.thenation.com).

I've Got a Little List

By Erica Jong

hen Random House's Modern Library imprint issued a list this past summer of the best novels in English published dur-

ing the twentieth century, surely I was not alone in noticing that only nine books written by women were among the designees. The list created controversy — as lists are meant to do.

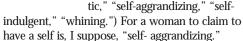
There was plenty of printed reaction to the Modern Library announcement, but none I saw seemed to offer an alternative list. The Random House website was deluged with reactions from angry readers who wondered where their favorite novels were, but nobody (not Harold Bloom with his Western Canon, nor Camille Paglia with her six-shooter, nor the Modern Library itself) thought to come up with a list of women writers in English who published

novels in this century. Surely a century that produced Isak Dinesen, Virginia Woolf, Colette, Doris Lessing, Simone de Beauvoir and Edith Wharton has been an extraordinary one for women authors. Released from compulsory pregnancy every year, released from having to pretend niceness, goodness, meekness and amnesia toward our own anger, women have produced an astonishing literature in English—and a host of other languages. The twentieth century has been the first in which women publicly roared. Why then have the good people at the Modern Library not heard? Well, women's achievements tend to be overlooked even by the enlightened who think themselves sensitive to such things. A woman's name on a book practically guarantees marginalization — which is why so many geniuses, from the Brontë sisters to George Sand and George Eliot, chose to use male noms de plume.

And yet I find myself thinking — in 1998! — that we have abandoned that practice at our peril. Oddly, books written by women tend to be marginalized by both male and female reviewers. Yes, it is true that certain hunky male authors like Sebastian Junger and Ethan Canin have been reviewed for their jacket photos, but generally the practice of reviewing the writer's photo rather than her text,

her personal life rather than her novel, her love affairs rather than her literary style, is the fate reserved for women authors. A recent example of a writer's life being reviewed even before her book is published is Joyce Maynard — but many authors, from Charlotte Brontë to Colette, have met this

fate. Why this automatic response? Surely, given the works of Sappho, Emily Dickinson and Jane Austen, it should be clear that a vagina is no obstacle to literature. Yet in a sexist society, both women and men automatically downgrade women's work. A poetess is never as good as a poet. An actor is more serious than an actress. An aviator navigates better than an aviatrix. The response today may be more unconscious than deliberate, but, alas, it remains. (I suggest that some compulsive scholar do a computer search of the typical weasel words in reviews of women's books. They are: "confessional," "solipsistic," "self-aggrandizing," "self-



I have been the recipient of this sort of literary "criticism" for so many years that it makes me snort and laugh rather than smart and weep, but my heart goes out to the novice female writers who run this gantlet with their first novels and are so wounded they never show up for the second act. This is, of course, the point. Boo the women off the stage with catcalls and rotten tomatoes and get them back to their proper womanly duties — editing men's books, feeding the egos of male writers, writing theses about James Joyce, William Faulkner and Ernest Hemingway — as if we didn't already have enough. Political correctness has rapped us on the knuckles for doing this to writers of color who are female. As a result, those artists are starting to be reviewed on their merits rather than their gender. This is a welcome change. As recently as twenty-eight years ago Toni Morrison's first novel, *The Bluest Eye*, was turned down by Random House (where she then worked as an editor) because it was assumed that African-Americans did not buy books and that nobody else would want to read novels about black



Erica Jong

Random House Modern Library's Best 100 20th-Century English Novels

- 1. Ulysses / James Joyce
- 2. The Great Gatsby / F. Scott Fitzgerald
- 3. A Portrait of the Artist as a Young Man / James Joyce
- 4. Lolita / Vladimir Nabokov
- 5. Brave New World / Aldous Huxley
- 6. The Sound and the Fury / William Faulkner
- 7. Catch-22 / Joseph Heller
- 8. Darkness at Noon / Arthur Koestler
- 9. Sons and Lovers / D.H. Lawrence
- 10. The Grapes of Wrath / John Steinbeck
- 11. Under the Volcano / Malcolm Lowry
- 12. The Way of All Flesh / Samuel Butler
- 13. 1984 / George Orwell
- 14. I, Claudius / Robert Graves
- 15. To the Lighthouse / Virginia Woolf
- 16. An American Tragedy / Theodore Dreiser
- 17. The Heart Is a Lonely Hunter / Carson McCullers
- 18. Slaughterhouse-Five / Kurt Vonnegut
- 19. Invisible Man / Ralph Ellison
- 20. Native Son / Richard Wright
- 21. Henderson the Rain King / Saul Bellow
- 22. Appointment in Samarra / John O'Hara
- 23. U.S.A. (trilogy) / John Dos Passos
- 24. Winesburg, Ohio / Sherwood Anderson
- 25. A Passage to India / E.M. Forster
- 26. The Wings of the Dove / Henry James
- 27. The Ambassadors / Henry James
- 28. Tender Is the Night / F. Scott Fitzgerald
- 29. The Studs Lonigan Trilogy / James T. Farrell
- 30. The Good Soldier / Ford Madox Ford
- 31. Animal Farm / George Orwell
- 32. The Golden Bowl / Henry James
- 33. Sister Carrie / Theodore Dreiser
- 34. A Handful of Dust / Evelyn Waugh
- 35. As I Lay Dying / William Faulkner
- 36. All the King's Men / Robert Penn Warren
- 37. The Bridge of San Luis Rey / Thornton Wilder
- 38. Howards End / E.M. Forster
- 39. Go Tell It on the Mountain / James Baldwin
- 40. The Heart of the Matter / Graham Greene
- 41. Lord of the Flies / William Golding
- 42. Deliverance / James Dickey
- 43. A Dance to the Music of Time (series)/Anthony Powell
- 44. Point Counter Point / Aldous Huxley
- 45. The Sun Also Rises / Ernest Hemingway
- 46. The Secret Agent / Joseph Conrad
- 47. Nostromo / Joseph Conrad
- 48. The Rainbow / D.H. Lawrence
- 49. Women in Love / D.H. Lawrence
- 50. Tropic of Cancer / Henry Miller

- 51. The Naked and the Dead / Norman Mailer
- 52. Portnoy's Complaint / Philip Roth
- 53. Pale Fire / Vladimir Nabokov
- 54. Light in August / William Faulkner
- 55. On the Road / Jack Kerouac
- 56. The Maltese Falcon / Dashiell Hammett
- 57. Parade's End / Ford Madox Ford
- 58. The Age of Innocence / Edith Wharton
- 59. Zuleika Dobson / Max Beerbohm
- 60. The Moviegoer / Walker Percy
- 61. Death Comes for the Archbishop / Willa Cather
- 62. From Here to Eternity / James Jones
- 63. The Wapshot Chronicle / John Cheever
- 64. The Catcher in the Rye / J.D. Salinger
- 65. A Clockwork Orange / Anthony Burgess
- 66. Of Human Bondage / W. Somerset Maugham
- 67. Heart of Darkness / Joseph Conrad
- 68. Main Street / Sinclair Lewis
- 69. The House of Mirth / Edith Wharton
- 70. The Alexandria Quartet / Lawrence Durrell
- 71. A High Wind in Jamaica / Richard Hughes
- 72. A House for Mr. Biswas / V.S. Naipaul
- 73. The Day of the Locust / Nathanael West
- 74. A Farewell to Arms / Ernest Hemingway
- 75. Scoop / Evelyn Waugh
- 76. The Prime of Miss Jean Brodie / Muriel Spark
- 77. Finnegans Wake / James Joyce
- 78. Kim / Rudyard Kipling
- 79. A Room With a View / E.M. Forster
- 80. Brideshead Revisited / Evelyn Waugh
- 81. The Adventures of Augie March / Saul Bellow
- 82. Angle of Repose / Wallace Stegner
- 83. A Bend in the River / V.S. Naipaul
- 84. The Death of the Heart / Elizabeth Bowen
- 85. Lord Jim / Joseph Conrad
- 86. Ragtime / E.L. Doctorow
- 87. The Old Wives' Tale / Arnold Bennett
- 88. The Call of the Wild / Jack London
- 89. Loving / Henry Green
- 90. Midnight's Children / Salman Rushdie
- 91. Tobacco Road / Erskine Caldwell
- 92. Ironweed / William Kennedy
- 93. The Magus / John Fowles
- 94. Wide Sargasso Sea / Jean Rhys
- 95. Under the Net / Iris Murdoch
- 96. Sophie's Choice / William Styron
- 97. The Sheltering Sky / Paul Bowles
- 98. The Postman Always Rings Twice / James M. Cain
- 99. The Ginger Man / J.P. Donleavy
- 100. The Magnificent Ambersons / Booth Tarkington

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people. The arrogance of those assumptions has long since been dispelled. But while it is clearly racist to attack writers of color, women writers who appear to occupy no minority niche are still fair game. Women are the scapegoats of the human race, and if scapegoats don't exist in nature, they have to be invented. The Modern Library list contained only eight women because a ratio of 92 to 8 probably seems normal to literary folk. (Edith Wharton accounted for two of the nine titles.) Diversity has come to mean racial diversity rather than gender fairness. Wherever possible, the token woman on a committee, a panel, a list, is apt to be

endowed with melanin. This is a condescending way of including two "minorities" in one fell swoop. But women are not a minority; we are 52 percent of the population. We are, in fact, an oppressed majority. If we didn't already know this the Modern Library list would have made it abundantly clear.

I've no particular wish to dump on the Modern Library. That venerable venture, started by legendary twenties publisher Horace Liveright and sold to Random House long before it was a vast agglomeration of formerly independent imprints, has always had a worthy mission: Bring good books to the people

inexpensively. The Modern Library was clever to devise the 100 best list as a way of getting column inches for books. It worked. Anything that gets people talking about books in a video culture is to be applauded. The composition of the original list was, however, hard not to quarrel with.

Ulysses by James Joyce, a formerly banned book that is now safely verified as a masterpiece because nobody reads it in its entirety, was the safest of safe top choices. Vladimir Nabokov's Lolita gave the list a bit of derring-do, circa 1955. Evelyn Waugh's Scoop, a personal favorite of mine, is a wonderful satirical novel about how the press starts wars, then covers them, but it is in no way as large a portrait of the world as The Golden Notebook by Doris Lessing. The Modern Library did make an attempt to include writers of color — V.S. Naipaul, Ralph Ellison, Richard Wright, James Baldwin — though women were not among them. Of the women on the list, Edith Wharton's The Age of Innocence and The House of Mirth are inevitable rather than courageous choices. (I would probably give a limb to have written The House of Mirth, but it hardly takes imagination to praise Wharton this long after her death — in 1937 — and recent transfiguration into film.)

The Random House readers who posted their choices on the Web site wound up with a list that puts four Ayn Rand novels in place of *Ulysses*, *The* Great Gatsby, Catch-22 and Darkness at Noon. Since Ayn Rand is not my cup of tea, I'm not impressed, but the readers' list is far more gender neutral than the original and doesn't discriminate against sci-fi or horror authors. (Robert Heinlein and Stephen King figure prominently.) The attempt to create a women's fiction list proved a fascinating exercise. I wrote to the 250 or so distinguished women writers and critics whose correct addresses I have in my database. I posted a notice on the rather lively writers' forum that's on my Web site (www.ericajong.com), and then, for good measure, I

"Oddly, books

written by women

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female reviewers."

ment I respect and whose addresses I happen to have. The results of tive. Because I promised anonymitheir lives. The poets' and novel-

ists' lists dribbled in more slowly. Pretty much everyone I wrote to tended to take the project seriously. They congratulated me on raising the question of a women's list at all — whether or not they had seen the original Modern Library list. Sometimes they included lists from their best friends, members of reading groups or seminars.

This list is the preliminary culling. It gives us, at least, a starting point. An equally long list could be made of memoirs, poems and novels in languages other than English.

All lists are highly arbitrary. And this, like all such efforts, is a work in progress. If you will write your favorites to me at my e-mail address (jongleur @pipeline.com), the next edition will surely include books I and my respondents have missed. This exercise may turn into a publishing project, so I hope to be as inclusive as possible.

Ranking the listed books seems to me like a useless exercise. Books are not prizefighters. They don't compete against one another. It may even be that many worthy volumes escaped the notice of my helpers because they were printed in tiny editions and disappeared into the pulping machine before they were even discovered. Many good

Erica Jong's Poll: Best 100 20th-Century English Novels by Women

Here are the books most frequently repeated after 1 Margaret Mitchell's *Gone With the Wind* and 2 Anne Rice's *Interview With the Vampire*: # Also on Random House list

Vincinia Wastr	To the Lighthouse	Sulvia Tourneand When	5) Mr Fortuna's Magget
Virginia Woolf	3. To the Lighthouse 4. Mrs. Dalloway	Sylvia Townsend Warner Katherine Anne Porter	52. Mr. Fortune's Maggot 53. Ship of Fools
	5. The Waves	Laura Riding	54. Progress of Stories
	6. Orlando	Ruth Prawer Jhabvala	55. Heat and Dust
Djuna Barnes	7. Nightwood		56. The Blue Flower
Edith Wharton	8. The House of Mirth	Penelope Fitzgerald Isabel Allende	57. The House of the Spirits
Editii vviiartori	9. The Age of Innocence		58. Possession
	10. Ethan Frome	A.S. Byatt Pat Barker	59. The Ghost Road
Radclyffe Hall	11. The Well of Loneliness	Rita Mae Brown	60. Rubyfruit Jungle
Nadine Gordimer	12. Burger's Daughter	Anita Brookner	61. Hotel du Lac
	0 0	Angela Carter	62. Nights at the Circus
Harriette Simpson Arnow Margaret Atwood	14. The Handmaid's Tale	Daphne Du Maurier	63. Rebecca
Willa Cather	15. My Antonia	Katherine Dunn	64. Geek Love
Erica Jong	16. Fear of Flying		65. We Have Always Lived in the Castle
Elica Jolig	• •	Shirley Jackson	66. Excellent Women
Iou Vogaria	17. Fanny 18. Obasan	Barbara Pym Leslie Marmon Silko	67. Ceremony
Joy Kogawa	19. The Golden Notebook	Anne Tyler	68. Dinner at the Homesick Restaurant
Doris Lessing	20. The Fifth Child	Affile Tylei	69. The Accidental Tourist
	21. The Grass Is Singing	Nancy Willard	
I I I	22. To Kill a Mockingbird	Jeanette Winterson	70. Things Invisible to See71. Sexing the Cherry
Harper Lee	23. Woman on the Edge of Time		72. Disturbances in the Field
Marge Piercy	24. A Thousand Acres	Lynne Sharon Schwartz Rosellen Brown	73. Civil Wars
Jane Smiley	25. Her First American	Harriet Doerr	74. Stones for Ibarra
Lore Segal		Jean Stafford	75. The Mountain Lion
Alice Walker	26. The Color Purple27. The Third Life of Grange Copeland	Stevie Smith	76. Novel on Yellow Paper
Marion Zimmer Bradley	28. The Mists of Avalon	E. Annie Proulx	77. The Shipping News
Muriel Spark	29. Memento Mori	Rebecca Goldstein	78. The Mind-Body Problem
Muliei Spark	30 The Prime of Miss Jean Brodie	P.D. James	79. The Children of Men
Dorothy Allison	31. Bastard Out of Carolina	Ursula Hegi	80. Stones From the River
Jean Rhys	32 Wide Sargasso Sea	Fay Weldon	81. The Life and Loves of a She-Devil
Susan Fromberg Shaeffer	33. Anya	Katherine Mansfield	82. Collected Stories
Cynthia Ozick	34. Trust	Rebecca Harding Davis	83. Life in the Iron Mills
Amy Tan	35. The Joy Luck Club	Louise Erdrich	84. The Beet Queen
rung kan	36. The Kitchen God's Wife	Ursula K. Le Guin	85. The Left Hand of Darkness
Ann Beattie	37. Chilly Scenes of Winter	Edna O'Brien	86. The Country Girls Trilogy
Zora Neale Hurston	38. Their Eyes Were Watching God	Margaret Drabble	87. Realms of Gold
Joan Didion	39. A Book of Common Prayer	TVIdigatet Didobie	88. The Waterfall
Jour Didion	40. Play It as It Lays	Dawn Powell	89. The Locusts Have No King
Mary McCarthy	41. The Group	Marilyn French	90. The Women's Room
iving ivicouring	42. The Company She Keeps	Eudora Welty	91. The Optimist's Daughter
Grace Paley	43. The Little Disturbances of Man	Carol Shields	92. The Stone Diaries
Sylvia Plath	44. The Bell Jar	Jamaica Kincaid	93. Annie John
Carson McCullers	45 The Heart Is a Lonely Hunter	Tillie Olsen	94. Tell Me a Riddle
Elizabeth Bowen	46 The Death of the Heart	Gertrude Stein	95. The Autobiography of Alice B. Toklas
Flannery O'Connor	47. Wise Blood	Iris Murdoch	96. A Severed Head
Mona Simpson	48. Anywhere But Here	Anita Desai	97. Clear Light of Day
Toni Morrison	49. Song of Solomon	Alice Hoffman	98. The Drowning Season
	50. Beloved	Sue Townsend	99. The Secret Diary of Adrian Mole
Stella Gibbons	51. Cold Comfort Farm	Penelope Mortimer	100. The Pumpkin Eater
June Siddold	com comort i di iii	, - charge minut	Ino I ampanii Datoi

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women's books undoubtedly go unpublished. What the list chiefly teaches us is the extent of our own ignorance. I don't claim to have read all these books, but it strikes me that this list would make a fascinating beginning course in women's literature. If we could only begin to immerse ourselves in the riches of the writers who came before us, we would see that we had an excellent broth to nourish our future efforts.

It interested me greatly to learn how hard it was for most of my respondents to name 100 books. I received scribbled notes that said things like: "Don't forget Angela Carter!" Or "What about the short story writers whose novels are less

good?" Since the list was of novels written in English, I had to exclude favorites of mine — like Colette, Simone de Beauvoir and Marguerite Yourcenar. Memoirs like Maxine Hong Kingston's *The Woman Warrior* were excluded because there will be a separate list of memoirs. Poetry was excluded because that, too, must wait for a future tally. (Women poets in English in this century could fill a very large library.)

Assembling the preliminary list, I kept being reminded of Emma Goldman's wise words: "When you are educated, when you know your power, you'll need no bombs or militia and no dynamite will hold you." •

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