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From the early years of schooling through graduate training, women and minorities face institutional, social, and psychological factors that impede access and advancement.

Ivy Halls and Glass Walls: Barriers to Academic Careers for Women and Ethnic Minorities

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Academic departments seeking to increase the ethnic and cultural diversity of their faculty frequently come up empty-handed. Though search committees may follow all the appropriate affirmative action guidelines for locating and recruiting applicants from underrepresented groups, the ultimate applicant pool often turns out to be exclusively Caucasian. In regard to achieving gender balance, the picture is somewhat different. Over the past twenty years, increasing numbers of women have been hired for entry-level academic positions. While this appears to redress the gender imbalance that existed, the reality is that the overall proportion of women faculty has remained about the same, since the total number of faculty has itself increased over that time period (Blum, 1991; Johnsrud, this volume).

Further, that proportion is underrepresentative of the numbers of women who *could* be entering academia, if one looks at earlier career orientation. In the sciences in particular, slightly more women than men study science at the undergraduate level, but fewer women than men enroll in graduate-level science courses. By the time the doctorate is received, the numbers of women have shrunk dramatically; for example, in 1986 women received only 10 percent of the doctorates in chemistry and were appointed to only 4 percent of the entry-level academic positions (Hensel, 1989). Recent figures in neuroscience show that women represent 45 percent of entering graduate students, 38 percent of the Ph.D.'s awarded, and only 18 percent of the tenure-track jobholders (Barinaga, 1992). In addition, when

women do enter academia, they tend to be hired at lower levels and at less-prestigious institutions than their male counterparts (American Association of University Women, 1989; Blum, 1991; Bronstein, Black, Pfennig, and White, 1986, 1987; Sandler and Hall, 1986).

If institutions of higher education are to achieve their stated goals of gender balance and multicultural diversity within their faculties, they must first learn to understand the factors that have impeded progress in that direction. This chapter will focus on the results of informal interviews with twelve women and members of ethnic minority groups who have made choices about entering academia, including graduate students, current faculty members, and individuals with graduate training who did not seek an academic career. (Details about individuals have been omitted, and in some instances modified, to protect their identity.) We will examine the institutional, social, and psychological factors at key points in time that may be serving as clearly visible barriers, or *invisible ones*—the glass walls—preventing women and people of color from making that career choice.

Institutional Factors

This section will examine early educational experiences as well as undergraduate and graduate experiences.

Early Educational Experiences. Most future academics seem to make their career choice during their undergraduate years. For women and people of color, however, paths that may lead to academia may not even be perceived, because of the messages embedded in the educational process from the time they enter school. Studies of classroom interaction and teacher attitudes from preschool through high school have found that teachers tend to show more attention to boys than to girls, and exert more effort to foster boys' cognitive development (American Association of University Women Educational Foundation, 1992; Sadker and Sadker, 1985; Serbin and O'Leary, 1979; Wilkenson and Marrett, 1985). In addition, teachers have been found to pay less attention to African American girls than to White girls (American Association of University Women Educational Foundation, 1992) and to give more negative academic and behavioral feedback to Black than to White children, and White teachers have been found to have more negative attitudes and beliefs about Black children than about White children (Irvine, 1985). It is not very surprising, then, that girls and ethnic minority children overall come to internalize these kinds of negative messages about their academic potential, and that these messages serve as barriers to making academic career choices. In fact, girls experience a loss in self-confidence in the early adolescent years that is twice that which boys experience (American Association of University Women, 1991). Some of our female (nonminority) respondents spoke of having been ignored or discounted by teachers, and the effects those messages had on them:

By my senior year in high school I had learned how to smile and gaze blankly at my male teachers, and never to volunteer anything in class.

I must have been very convincing, because when I scored very high in my county on a state scholarship exam, my [male] chemistry teacher said, "How did you ever manage to do that?"

When I went to my tenth high school reunion, I ran into my senior history teacher. I was surprised that he remembered me, since I had not been one of the special group of students (mainly male) he'd selected to meet with him after school, to discuss current events. He said to me, "You were always so smart—why didn't you ever say anything in class?" I remember thinking afterward, "Why didn't you ask me that ten years ago?"

Messages recalled by women of color were often more overt:

I was in the high honors group in high school, but was having trouble with freshman algebra. My teacher ignored me when I raised my hand or asked for extra help. However, I managed to pull my grade up to a B. When the teacher found out I wanted to go to college, she said she didn't think I was the kind of person who was acceptable for college, and flunked me for the year.

I was blackballed from being admitted to the National Honor Society my junior year in high school, by a teacher who said my behavior was a disgrace to my race, and I wouldn't be an asset to the Honor Society. My folks went to school and screamed bloody murder, so she couldn't do it again the next year, and I got in.

Ethnic minority men recalled similar negative messages:

When I was in first or second grade, there were two reading groups, the Bluebirds and the Redbirds. The Bluebirds were the good readers. I was in the Redbirds, though there had never been any test to determine reading ability. One day, I was asked to read aloud in class, and I read very well—and I was immediately put into the Bluebirds. I suddenly realized that I was the only Black kid in the Bluebirds, and that all of the Redbirds were Black.

My high school counselor never talked to me about college. When I said I was interested in going to college, he said that there were a lot of great trades opening up, and I might not want to waste my time with college.

In addition, studies of college entrance and scholarship exams have shown them to be very concrete barriers to academic advancement for

women, ethnic minorities, and students from low-income families. Not only are they biased in item content, but they are biased in their predictions of academic performance. Specifically, average SAT scores are sixty-one points higher for males, yet females receive higher grades than males throughout both high school and college. In addition, as a result of lower test scores on the PSAT, girls receive only about one-third of the National Merit Scholarships, and lose out on many other scholarships from government and private agencies, who rely on PSAT, SAT, or ACT results to select winners ("Girls Lose Millions in Aid Because of Sex Bias," 1987; Rosser, 1987, 1989; "Tests Judged Unfair to Women," 1987). Ethnic minority girls face double jeopardy, since similar gaps between male and female scores exist within every ethnic group, and ethnic minorities overall score lower than Whites. This means that female and ethnic minority students will be less likely to gain admission to more-prestigious institutions, and, as a result of receiving fewer scholarships, will be more likely than White males to attend state and community colleges, rather than those private colleges and research universities that open the way to graduate school (see discussion below). The widespread tendency for students with financial means to obtain coaching for these exams further exacerbates the discrimination.

Undergraduate Environments. Those who go on to higher education are likely to continue to encounter subtle negative messages, which can create invisible walls. Trujillo (1986), in a study of the classroom behavior of White male professors toward minority and nonminority students at a large coeducational university, found that professors directed a greater number of complex questions to nonminority students, gave them more clues to help them improve their responses, and took more time in responding to questions those students posed. A study of classroom interaction in Harvard undergraduate classes (Krupnick, 1985) revealed that White male students tended to dominate discussion, particularly in classes with male teachers and a majority of male students, with White women and ethnic minority students of either gender playing a subordinate role. Further, in a study (Welch, cited in Krupnick, 1985) comparing classroom interaction at several Ivy League institutions, the women at coeducational schools were found to be much less assertive than those at all-female schools. Since most undergraduate institutions are coeducational and predominantly White, and most faculty are male, the classroom climates described in the first two examples above are more likely to represent the normative undergraduate experience, with White male students volunteering sooner and more frequently in class, speaking longer and with fewer interruptions, and male faculty encouraging this pattern (Krupnick, 1985).

Another factor that creates invisible walls is the interpersonal climate: whom students see, or do not see, on a daily basis in their institution. In research universities and prestigious four-year colleges, which are the institutions that are most likely to be grooming students for academic

careers, there are very few faculty of color at any level, and relatively few tenured female faculty (Sandler and Hall, 1986; Johnsrud, this volume). Thus role models and mentors are rarely present for female and ethnic minority students: no one is encouraging and guiding them toward academic careers, and no one is showing them how it is done. Women undergraduates in the sciences and students of color in every area of predominantly White institutions are also likely to see few students like themselves, which may cause them to question whether they themselves belong there. One African American graduate student reported a common problem:

I was the only Black student majoring in psychology in my college, and I felt very isolated. The other Black students kept asking me why I was wasting my time in that field, implying that it was a weird field for a Black to be in.

In addition, in this country, socioeconomic factors interact with culture, ethnicity, and gender in predicting academic and career attainment (American Association of University Women Educational Foundation, 1992; Arnold, 1993) and this interaction creates further barriers to academic careers for students of color. Specifically, because such students are more likely to have very limited financial resources, they are more likely to attend low-cost institutions, such as community and state colleges. Since these colleges emphasize teaching rather than faculty research, these students will then have little—if any—opportunity to develop interest or gain experience in research; furthermore, the faculty are likely to have less knowledge about helping students get into graduate school, and less tendency to steer their students in that direction. Thus, a sizeable number of ethnic minority undergraduates will never get on a graduate school "track." Even for those who are outstanding scholars in high school, family and cultural dictates may severely curtail educational and career attainment (Arnold, 1993). In addition, for those who are considering further education, degrees in business, law, or medicine are likely to seem a better return for all the money and time that will be invested in earning an advanced degree.

Graduate Education. For students who do wish to go on to graduate school, gender, race, and socioeconomic factors may again play a part in the process. While many graduate programs actively seek to admit members of underrepresented groups, invisible walls may affect the outcome. A White man and woman, respectively, both of whom did go on to become academics, offered interesting contrasting experiences:

I decided on a career in sociology, and went to talk to the president [of a small, midwestern state college], to find out how to do that. He said, "Where do you want to go, Harvard, Princeton, or Yale?" On his advice, I applied to all three, and ended up at Yale.

In my early thirties, I became interested in psychology. I had a masters and a teaching job in another field, and I began taking courses, to get some background. When I asked one of my professors how I could go on in psychology, he told me that I would never get into graduate school because I had no math background and wouldn't be able to do the statistics, and besides, if I ever did get through graduate school, no one would hire me, because I would be too old. Luckily, I didn't listen. Two years later, I was coteaching the course with him.

Cultural differences, compounded with geographic and socioeconomic differences, may create invisible barriers for ethnic minority individuals applying to graduate school. They may be more likely to lack the financial resources for paying multiple application fees, visiting prospective institutions, and going on interviews—and they may have difficulty taking time away from employment to go through the application process. Faculty interviewers are more likely to respond favorably to the kind of social behaviors and self-presentation that are consonant with their own upbringing and education. The very small number of ethnic minority applicants may in itself create another invisible psychological barrier for those few who apply. One female graduate student spoke of her reactions when she took the Graduate Record Exam:

There were very few Black or Hispanic faces in the room—and this was in New York City! I looked around and said to myself, “Where are we? Is everyone taking the GMAT’s or the MCAT’s or the LSAT’s instead?” The question underneath that, of course, was, “When I get to graduate school, will I be the only one?”

Once they have entered graduate school, women and ethnic minority students are likely to find the same barriers they previously found, and new ones may appear. There is ample documentation that women are less likely to have mentors or to receive the same level of encouragement, resources, and opportunities as their male peers (American Association of University Women, 1989; Chamberlain, 1988; Gibbons, 1992; Sandler and Hall, 1986). The following reported experience is typical:

My major professor never invited me to get involved in his research projects—he only worked with male students. The only mentoring he did was to say to me, in passing, “Maybe you should see about publishing those two group studies”—studies I had done, essentially on my own, four years previously. I wrote up and published the studies, with no additional input from him. And I never went to a conference, the whole time I was in graduate school—I never knew there *were* conferences.

Ethnic minority graduate students often have similar experiences. A Hispanic student reported that he and two other students of color (one African

American and one Asian American) had at different times asked a White faculty member if they could join his research team, only to be told that no new students were being added at that time. In each instance, the faculty member shortly thereafter added new White students to his team. Such incidents can cause women and ethnic minority students to question their own abilities, and their place in the academic world. In addition, students of color may suspect that both faculty and fellow students believe them to be less competent, and attribute their graduate school admission solely to affirmative action.

Because most graduate programs reflect the White, androcentric biases of the culture, it may be difficult for women and ethnic minority students to pursue scholarly interests that are especially meaningful for them. One group of feminist graduate students in psychology has written about the difficulty of pursuing feminist concerns in a department where “the mainstream perspective (that is, the White, middle-class, heterosexual, male perspective) . . . is taken as the status quo” (Six Spoke Collective, 1991, p. 104). An African American graduate student spoke of the lack of possibilities for collaborating on research related to African Americans, because there are no Black faculty or graduate students, aside from himself, in his department. In addition, the presence of women and ethnic minority faculty can have both positive and negative effects. On the one hand, they can serve as role models, offering support, guidance, and research opportunities for the students, with their presence attesting that there is a place for women and people of color in academia. On the other hand, such faculty much more frequently than their White male colleagues report that they feel unappreciated and unsupported in their departments, and that their work, particularly if it focuses on gender or minority issues, is devalued and viewed as peripheral (Bronstein, this volume; Rothblum, 1988). In addition, women and people of color are more likely to be denied reappointment or tenure, or to leave voluntarily within a few years of arriving (American Association of University Women, 1989; Blum, 1991; “Women Academics Still Experience Discrimination,” 1986). Students who witness their role models being treated in this manner are likely to think twice before pursuing an academic career (Six Spoke Collective, 1991).

For the handful of ethnic minority graduate students who do decide to seek academic careers, the recent impetus to increase college and university faculty diversity has generally resulted in very positive outcomes to the job search process. For nonminority women, however, there may be additional barriers in the process, leading to less-than-optimal outcomes. Given the greater likelihood, compared with their male peers, that they have not been mentored, female graduate students are less likely to know how to make themselves marketable: how to publish their work, respond to reviewers, present at conferences, network with colleagues, prepare an effective curriculum vitae, or give a dynamic job talk. They are less likely to have

someone pick up the phone on their behalf, to help them get a job via the Old Boys' network. If they have children, they are more likely to have male professors who will detail their family responsibilities in the letters of recommendation they write for them (Bronstein, Black, Pfennig, and White, 1986, 1987), thereby possibly prejudicing their applications. Departments considering their applications may tend to see them as less qualified than some of the men in the larger pool of male applicants, many of whom are recycling from tenure turn-downs and soft-money positions; such men often have longer publication records, simply because they have had a longer period of time since finishing graduate school to do research and publish their work. In addition, departments who already have one or two women often feel no imperative to hire more, even though the percentage of women faculty in the department is still far below the percentage in what affirmative action guidelines refer to as the availability pool (Bronstein, Black, Pfennig, and White, 1986, 1987). Thus, in many fields with predominantly male faculty, new female Ph.D.'s may still have difficulty getting tenure-track positions. Given the choice of spending several years in post-docs and visiting positions, in hopes of eventually landing a tenure-track appointment, some of these women look for careers outside of academia.

Social Factors

In addition to institutional factors, social factors also contribute to the glass walls keeping women and people of color from academic careers. These include family and relationship issues, life-style choices, and political climate.

In regard to family, the message to women that marriage and motherhood will be a key part of their adult identity begins in childhood, with the toys they are given (Langlois and Downs, 1980; Weinraub and Brown, 1983) and the doll play they see modeled in television commercials. Messages become more overt in adulthood, when families may pressure women to assume traditional roles. Two female faculty described these pressures:

At a time when my career was going very well (I was doing a post-doc at Stanford), I went to a family wedding. The bride was unemployed, her brother was unemployed, and her sister had just broken up with her husband. But every single family member said to me, "I'm so sorry. I hope things get better soon." It took me a while to get what they were talking about—that I wasn't in a relationship!

When I went on for my Ph.D., my mother seemed particularly uninterested and critical. Finally I said, "Aren't you proud of me?" And she said, "Of course I'm proud of you, but I disapprove of it six hundred percent!" She thought it was terrible that I didn't have any dining room furniture, and that I was neglecting my husband and children.

The message surfaces frequently in the media, often without any basis in fact. For example, *Newsweek* alarmed professional women across the country with a cover story on the purported odds against women in their thirties or older ever marrying (with 40-year-olds "more likely to be killed by a terrorist") (Salholz, 1986, p. 55). This widely-publicized claim was based on unpublished research which a population specialist at the Census Bureau was unable to replicate, but no correction or follow-up story was ever published (Faludi, 1991). A recent *New York Times Magazine* author bemoaned the shortage of educated African American men who could marry her daughter (Raybon, 1992). Instead of celebrating the increasing professional accomplishments of women, or examining the plight of African American males, the media has focused on the fact that some women might not get married, and presented this possibility as a cause for national concern.

Yet having both a family and an academic career is no simple matter. The tenure system in the United States was set up for male faculty, whose wives provided all the homemaking so that their husbands could devote their energies solely to academic career advancement. Such arrangements do not exist for most women faculty. It appears that the tendency for women to be concentrated in the lower faculty ranks and in non-tenure-track, part-time positions, is due in part to the conflicting demands of career and family relationships.

First, women who are married or in committed relationships more often than men put the needs of their partner ahead of their own career aspirations. They tend to be more hesitant to relocate, and more likely to limit their job seeking to locales where their partner can find suitable employment (Bronstein, Black, Pfennig, and White, 1986, 1987; Leviton and Whitely, 1981; Marwell, Rosenfeld, and Spilerman, 1979). Thus, for many female Ph.D.'s, living with one's partner means foregoing a tenure-track position (Barinaga, 1992)—or alternatively, obtaining a tenure-track position, and remaining single. Even before the job-seeking stage this gender difference is apparent: "My internship was for people going into academia, and all the interns (six women and seven men) came there from out of state. All the men were married, except one, and all of their wives came with them, and worked as secretaries and bank tellers—and that was what their work histories had been. All the women were single, except one, and the husband of the one who was married stayed in New Jersey." Further, women are more likely than men to view their relationship as an important priority, and to limit their working hours in order to maintain it, while men are likely to be less tolerant than women of their partner's devoting long hours to career demands.

Second, the decision to have children can present a major obstacle to academic advancement, or even to entering academia in the first place. If a woman has children before finishing graduate school, the demands of a

tenure-track job, and the temporary relocations that may be required on the way to obtaining one, may seem too intimidating to contemplate. For those who do obtain tenure-track positions, the biological clock and the tenure clock are often ticking side by side, presenting women faculty with difficult decisions about whether to postpone either childbearing or tenure, or to drop off the tenure track altogether. Not surprisingly, promotions for women in academia take two to ten years longer than for men; women are less likely than men to be granted tenure (Hensel, 1989); and women are more likely than men to resign voluntarily from tenure-track positions (Rothblum, 1988). Overall, disproportionately fewer women achieve high levels of success in academia (Clark and Corcoran, 1986), with women reporting more conflict between parenting and work (Justus, Freitag, and Parker, 1987, cited in Hensel, 1989). Faculty women who have given birth during the pretenure period report that the demands of parenting made it difficult to find time to do research and writing (Hensel, 1989).

Women undergraduate and graduate students seem well aware of these dilemmas. One faculty member who attended an all-women's college said that her classmates always focused on the fact that very few of their female professors had both a career and a "normal" family life, and that fact caused them to steer away from an academic career. In fact, 50 percent of academic women remain single or childless (Hochschild, 1975); in a study of one university, no faculty women had had children before the age of thirty, compared with 75 percent of women in the population at large (Yogev and Vierra, 1983).

Potential life-style, philosophical, and political conflicts can also serve as social barriers to women considering entering academia. Women in our sample who chose to become psychotherapists rather than academics cited the desire to do "real-world" work, where they could retain their autonomy and "not be responsible to the patriarchy." Graduate students have noted such things as too little chance for collaborative work, too much focus on counting publications rather than the quality of the work, too little opportunity to effect social change, and the absence of role models who have shown that it is possible to work productively in academia and have leisure time (see Six Spoke Collective, 1991). Political obstacles that these women mentioned included concerns about how their feminism would be received, and whether it would impede their career advancement. Lesbians and gay men may have similar concerns regarding their sexual orientation, if they wish to be open about it to students, or if they wish to do research in this area (Rothblum, 1992; Tierney and Rhoads, this volume). For people of color, there may also be geographic barriers—jobs in certain parts of the country that seem impossible to consider, because of an absence of others from similar backgrounds, or because of the overall racial climate—including actual physical risks likely to be incurred by living in a racially hostile environment. Also, the five years it takes to go through graduate school, plus

the additional seven to ten years it will take to earn tenure, can seem an inordinately long period for career building, especially for students from low-income or nonprofessional backgrounds.

Psychological Factors

Because people seem to internalize many of the messages they receive from the world around them, it is difficult to separate out psychological factors from institutional and social ones. Perhaps the psychological barriers to academia for women and people of color can be seen as end products: an internalization of the institutional and social oppression that causes the individual to become *self-denigrating* and *self-limiting* in thoughts and behaviors. These negative self-messages can take different forms. For women, there is frequently a sense of inadequacy around numbers and computers, which seems to be an outgrowth of the math anxiety that girls often "catch" beginning in fifth grade (Tobias, 1978). Each year some of our brightest female graduate students enlist male peers to do the data analyses on their projects—whereas we have yet to see a male graduate student seek that kind of assistance. Students with this sense of inadequacy will, of course, be less likely to make a career choice for which research is the key to success.

Writing is another major area of concern. Women and ethnic minority faculty frequently mention writing blocks, procrastination, and a sense of paralysis. For some, there is the fear that their writing will reveal inadequacies they suspect about themselves: lower intelligence, weak ideas, or even mistakes in grammar or vocabulary. Socioeconomic background can play an important part in these concerns, in terms of the ways that reading and writing were regarded in their families of origin, and the quality of the schools they attended. For others, it is more a question of voice. If they dare to write about what is meaningful to them, will it be regarded as too radical or tangential, and thus impede their career advancement (Bronstein, this volume; Six Spoke Collective, 1991)? Will they be dismissed, attacked, or thought crazy? Overall, it may also be a question of identity, that is, of seeing scholarship as their rightful calling (see Gainen, this volume). Because of all the messages to the contrary that women and people of color have encountered, in the educational system and the world at large, very few are able to respond as the late feminist scholar Nancy Datan (1982, p. 6) did, when her husband complained that she never cooked: "I write. I write books and I write essays and I write poetry. That's what I do."

The result of internalizing negative messages may be an overriding fear of failure. One woman faculty told us, "What many [women] students tell me is the reason for not going into academia is, 'I couldn't take the "publish or perish." ' What I think this really means isn't job security, it's the tremendous evaluation anxiety—terror of what it would mean to be so publicly failing." Such fears contribute further to the writing difficulties

described above. Research on procrastination in college students found that key factors for women, more than for men, were evaluation anxiety, perfectionism, and low self-esteem (Rothblum, Solomon, and Murakami, 1986; Solomon and Rothblum, 1984). These kinds of fears are at the basis of what Clance (1985) has described as the "imposter phenomenon," a sense of intellectual "faking" often experienced by high-achieving women. Since these feelings are likely to intensify the higher up the educational ladder they go, it is not surprising that many women and people of color choose not to enter academia, where performance evaluation occurs for every paper and grant proposal they submit, and every class they teach.

Conclusion

Given the visible and invisible barriers to academic careers that women and people of color currently encounter, what reasons might there be for them to pursue that goal? Clearly, academia is a route to social and political power; it brings automatic prestige, access to the media, access to political structures, and access to the promising young minds who will shape society's future. Thus, for individuals trying to address social, political, and economic inequities, an academic career can provide the means. Further, if we want women and ethnic minority students to feel welcome and less isolated in our academic programs, then there have to be mentors and role models to guide them. One faculty woman spoke of the choice she had made: "My daughters, having seen what a struggle it's been, and how much I work, have asked me if I would choose to do it again. And I've said yes. I'm really doing it for them—and for women—pushing the doors open a little wider, and holding them open. Some of us have to do that, and I've chosen to be one of the ones who tries to take that on." Finally, the talents and diverse perspectives that they bring can only serve to enrich the fields that they enter, and the rewards will be felt on every level—by individuals, disciplines, and institutions.

Recommendations. What, then, can be done to help women and people of color break through the glass walls blocking their entry into academic careers? Since socioeconomic level is such a strong predictor of academic achievement, it is possible to conclude that nothing will change until there is a more equitable distribution of resources in this country. However, we believe it is possible to make the glass walls visible, and to remove them.

During the primary and secondary school years school personnel can have an enormous impact. If teachers, guidance counselors, and administrators are to prevent and remove the barriers described here, they must become educated about sociocultural and gender inequities, and how they are played out within the school world. This education process should be part of both their undergraduate and graduate training. In addition, schools can help ethnic minority parents and parents of girls become more aware of

these issues, so that they can most effectively foster their children's academic potential. Both schools and parents must also insist on financial parity for all students, so that there are equal academic and extracurricular resources available for girls and boys, and for all children of color. The use of college entrance examinations to keep the gates open wider for White males than for other groups must be challenged.

Much can be done in higher education as well. Colleges and universities must continue actively to recruit underrepresented groups into their student bodies. They must educate their faculty about the subtle ways that sexism and racism can limit academic advancement, and monitor teaching and advising with this in mind (see the guide published by the Association of American Colleges, 1992). They must provide incentives to administrators and faculty for retaining women and ethnic minority students, and fostering their academic advancement. They must provide mentors and role models, by hiring more women and people of color as faculty and upper-level administrators. And they must make their curricula gender-balanced and multicultural—for example, by establishing women's studies and various ethnic studies programs, by providing course offerings that focus on issues related to women and people of color, and by incorporating gender-related and multicultural material into existing courses. Colleges and universities must recruit aggressively at all levels, so that women and ethnic minorities are included in upper- as well as entry-level ranks, and so that the numbers within departments move beyond token representation. There must also be aggressive efforts at retention and promotion. This means standardizing and monitoring reappointment, tenure, and promotion procedures, so that they cannot be used as instruments of discrimination. It means creating a climate of support and respect for women and ethnic minority faculty—for example, by providing mentoring and equal resources, and showing interest in their work. It means building flexibility into appointments and tenure timetables, so that faculty women do not have to choose between academia and motherhood. It means attending to the issue of inclusion, in terms of appointments to key committees and decision-making bodies, and participation in department social activities. Many resources are available that provide detailed guidelines for change within our institutions of higher education—in particular, publications from the Project on the Status and Education of Women of the Association of American Colleges, and the American Association of University Women. We now have the opportunity to reexamine our beliefs and practices, and to reeducate ourselves, so that we can remove the glass walls, and welcome many more women and people of color into careers in academia.

References

- American Association of University Women. *Women and Tenure: The Opportunity of a Century*. Washington, D.C.: American Association of University Women, 1989.

- American Association of University Women. *Shortchanging Girls, Shortchanging America*. Washington, D.C.: American Association of University Women, 1991.
- American Association of University Women Educational Foundation. *The AAUW Report: How Schools Shortchange Girls*. Washington, D.C.: American Association of University Women, 1992.
- Arnold, K. D. "The Fulfillment of Promise in African-American and Mexican-American High School Valedictorians and Salutatorians." *Review of Higher Education*, in press.
- Association of American Colleges. *Teaching Faculty Members to Be Better Teachers: A Guide to Equitable and Effective Classroom Technique*. Washington, D.C.: Association of American Colleges, 1992.
- Barinaga, M. "Profile of a Field: Neuroscience. The Pipeline Is Leaking." *Science*, 1992, 255, 1366-1367.
- Blum, D. E. "Environment Still Hostile to Women in Academe, New Evidence Indicates." *Chronicle of Higher Education*, Oct. 9, 1991, pp. A1, A20.
- Bronstein, P., Black, L., Pfennig, J., and White, A. "Getting Academic Jobs: Are Women Equally Qualified—And Equally Successful?" *American Psychologist*, Mar. 1986, pp. 318-322.
- Bronstein, P., Black, L., Pfennig, J., and White, A. "Stepping Onto the Academic Career Ladder: How Are Women Doing?" In B. A. Gutek and L. Larwood (eds.), *Women's Career Development*. Newbury Park, Calif.: Sage, 1987.
- Chamberlain, M. K. *Women in Academe: Progress and Prospects*. New York: Russell Sage Foundation, 1988.
- Clance, P. R. *The Imposter Phenomenon: When Success Makes You Feel Like a Fake*. New York: Bantam Books, 1985.
- Clark, S., and Corcoran, M. "Perspectives on the Professional Socialization of Women Faculty: A Case of Accumulative Disadvantage?" *Journal of Higher Education*, 1986, 57 (1), 20-43.
- Datan, N. "The Fifty-Nine Cent Cycle." Unpublished manuscript, West Virginia University, 1982.
- Faludi, S. *Backlash: The Undeclared War on American Women*. New York: Crown, 1991.
- Gibbons, A. "Key Issue: Two-Career Science Marriage." *Science*, 1992, 255, 1380-1381.
- "Girls Lose Millions in Aid Because of Sex Bias." *National NOW Times*, May-June 1987, p. 3.
- Hensel, N. "Resolving the Conflict: Parenting and Professorship." *Thought and Action*, 1989, 5 (2), 71-84.
- Hochschild, A. R. "Inside the Clockwork of Male Careers." In F. Howe (ed.), *Women and the Power to Change*. New York: McGraw-Hill, 1975.
- Irvine, J. J. "Teacher Communication Patterns as Related to the Race and Sex of the Student." *Journal of Educational Research*, 1985, 78 (6), 338-345.
- Justus, J., Freitag, S. B., and Parker, L. L. *The University of California in the Twenty-First Century: Successful Approaches to Faculty Diversity*. University of California, Berkeley, 1987.
- Krupnick, C. G. "Women and Men in the Classroom: Inequality and Its Remedies." *Teaching and Learning*, 1985, 1 (1), 18-25.
- Langlois, J. H., and Downs, A. C. "Mothers, Fathers, and Peers as Socialization Agents of Sex-Typed Play Behaviors in Young Children." *Child Development*, 1980, 51, 1217-1247.
- Leviton, L. C., and Whitely, S. E. "Job Seeking Patterns of Female and Male Ph.D. Recipients." *Psychology of Women Quarterly*, 1981, 5 (5), 690-701.
- Marwell, G., Rosenfeld, R., and Spilerman, S. "Geographic Constraints on Women's Careers in Academia." *Science*, 1979, 205, 1225-1231.
- Raybon, P. "The Stolen Promise." *New York Times Magazine*, May 3, 1992, pp. 20-22.
- Rosser, P. *Sex Bias in College Admissions Tests: Why Women Lose Out*. Cambridge, Mass.: National Center for Fair and Open Testing (FairTest), 1987.
- Rosser, P. *The SAT Gender Gap: Identifying the Causes*. Washington, D.C.: Center for Women Policy Studies, 1989.
- Rothblum, E. D. "Leaving the Ivory Tower: Factors Contributing to Women's Voluntary Resignation from Academia." *Frontiers*, 1988, 10 (2), 14-17.

- Rothblum, E. D. "Issues Facing Lesbian and Gay Psychologists in Academic Settings." Unpublished manuscript, 1992.
- Rothblum, E. D., Solomon, L. J., and Murakami, J. "Affective, Cognitive, and Behavioral Differences Between High and Low Procrastinators." *Journal of Counseling Psychology*, 1986, 33, 387-394.
- Sadker, M., and Sadker, D. "Sexism in the Schoolroom of the 80's." *Psychology Today*, Mar. 1985, pp. 54-57.
- Salholz, E. "The Marriage Crunch." *Newsweek*, June 2, 1986, pp. 54-57, 61.
- Sandler, B. R., and Hall, R. M. *The Campus Climate Revisited: Chilly for Women Faculty, Administrators, and Graduate Students*. Washington, D.C.: Project on the Status and Education of Women, Association of American Colleges, Oct. 1986.
- Serbin, L. A., and O'Leary, D. K. "How Nursery Schools Teach Girls to Shut Up." In J. H. Williams (ed.), *Psychology of Women: Selected Readings*. New York: Norton, 1979.
- Six Spoke Collective. "Feminism and Psychology: A Dangerous Liaison." *Women and Therapy*, 1991, 11 (1), 103-110.
- Solomon, L. J., and Rothblum, E. D. "Academic Procrastination: Frequency and Cognitive-Behavioral Correlates." *Journal of Counseling Psychology*, 1984, 31, 503-509.
- "Tests Judged Unfair to Women." *Project on the Status and Education of Women*, 1987, 17 (2), 2-3.
- Tobias, S. *Overcoming Math Anxiety*. New York: Norton, 1978.
- Trujillo, C. M. "A Comparative Examination of Classroom Interaction Between Professors and Minority and Non-Minority College Students." *American Educational Research Journal*, 1986, 23 (4), 629-642.
- Weinraub, M., and Brown, L. M. "The Development of Sex-Role Stereotypes in Children: Crushing Realities." In V. Franks and E. D. Rothblum (eds.), *The Stereotyping of Women: Its Effects on Mental Health*. New York: Springer, 1983.
- Welch, K. "Sex Differences in Language and the Importance of Context: An Observational Study of Classroom Speech." Unpublished undergraduate thesis, Yale University, 1984.
- Wilkinson, L. C., and Marrett, C. B. *Gender Influences in Classroom Interaction*. Orlando, Fla.: Academic Press, 1985.
- "Women Academics Still Experience Discrimination." In *Higher Education and National Affairs*. Washington, D.C.: American Council on Education, 1986.
- Yogev, S., and Vierra, A. "The State of Motherhood Among Professional Women." *Sex Roles*, 1983, 9, 391-396.

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