

Key Resources

Annotated Bibliography

American Psychological Association. "Psychology Education and Careers Guidebook for College Students of Color." Office of Ethnic Minority Affairs, March 1998. Also available on the Internet at <http://www.apa.org/pi/oema/>.

This pamphlet advises minority college students about steps they can take to prepare for a future career in psychology. The importance of mentorship, networking, and preparation for graduate training are outlined throughout the publication.

American Psychological Association. "Psychology Education and Careers Guidebook for College Students of Color: Applying to Graduate and Professional Programs." Office of Ethnic Minority Affairs, March 1998. Also available on the Internet at <http://www.apa.org/pi/oema/>.

This pamphlet provides guidance about many aspects of the graduate school application process. Some of the topics in the guide include information about selecting a graduate program, the application process, and examinations required for graduate study of psychology. The pamphlet also contains advice about the factors that contribute to successful and unsuccessful applications.

American Psychological Association. "Psychology Education and Careers Guidebook for High School Students of Color." Office of Ethnic Minority Affairs, March 1998. Also available on the Internet at <http://www.apa.org/pi/oema/>.

This pamphlet gives advice to minority high school students about seeking careers in psychology. The pamphlet explains the duties and educational background necessary for a career in psychology. Contributions of ethnic minorities to the field of psychology are also highlighted.

American Psychological Association. "Psychology Education and Careers Guidebook: Resources for Psychology Training Programs Recruiting Students of Color." Office of Ethnic Minority Affairs, March 1998. Also available on the Internet at <http://www.apa.org/pi/oema/>.

This brochure gives guidance to psychology graduate and professional training programs in the development of minority recruitment and retention strategies. The brochure also contains advice for academic institutions about developing recruitment packets to attract ethnic minorities to psychology programs.

American Psychological Association. "Report of the Task Force on the Changing Gender Composition of Psychology." October 1995. Also available on the Internet at <http://www.apa.org/pi/taskforce/>.

This report analyzes factors related to the increased representation of women and decreased representation of men in the field of psychology. More access to educational and employment opportunities has led to a significant increase in the number of women who are choosing to enter the field of psychology. The report cautions that female dominance in the field of psychology could potentially lead to lower salaries and prestige based on historical trends in other professions.

American Psychological Association. "Surviving and Thriving in Academia: A Guide For Women and Ethnic Minorities." A Joint Publication of the Committee on Women in Psychology and American Psychological Association's (APA) Commission on Ethnic Minority Recruitment, Retention, and Training in Psychology (CEMRRAT). May 1998. Also available on the Internet at <http://www.apa.org/pi/wpo/>.

This pamphlet helps new female and minority Ph.D.s to find jobs and gain career advancement. The pamphlet discusses strategies for maximizing chances for promotion and tenure, as well as strategies for coping with negative tenure outcomes. In addition, the pamphlet gives advice to women and minorities about how to functionally deal with adversity during their careers.

American Psychological Association. "Visions and Transformations...The Final Report." Commission on Ethnic Minority Recruitment, Retention, and Training in Psychology, January 1997. Also available on the Internet at <http://www.apa.org/pi/oema/>.

The Committee explored barriers to recruitment and retention of ethnic minorities in the field of psychology. The report outlines the American Psychological Association's 5-year plan for increasing minority recruitment and retention by promoting multicultural education, and increasing ethnic minority faculty and student recruitment and retention. In addition, the APA aims to provide national leadership for diversity education in science and the APA plans to promote data collection, research, and evaluation in the areas of minority recruitment and retention.

American Psychological Association. "Women in the American Psychological Association Women's Program Office Public Interest Directorate." Washington, D.C.: 1999.

This pamphlet is a biannual assessment of the status of women's participation in APA governance, in the journal publication process, program consultation and accreditation, and the governance structure of the APA. The pamphlet provides demographic information about women in the APA and their participation in APA divisions and state and regional psychological associations.

American Society for Cell Biology Newsletter. Women in Cell Biology Column (published monthly). Also located on the Internet at <http://www.ascb.org/ascb/>.

The "Women in Cell Biology" column, written by members of the Women in Cell Biology Committee, covers a variety of issues related to career development and advancement of women scientists. Topics include: transition between academia and industry, the tenure process, sexual harassment, and skill development.

American Society for Cell Biology. ASCB Membership Survey. Published September 14, 1998. Also located on the Internet at <http://www.ascb.org/ascb/survey/survey.htm>

The Education Committee of the American Society for Cell Biology conducted a Member Career Survey. The comprehensive survey of biomedical scientists and trainees compares real and perceived career prospects, measuring success by several objective parameters and satisfaction qualitatively across cohorts. The study found that during the past 20 years it has become increasingly difficult for scientists to complete Ph.D.'s and obtain full-time employment.

Benjamin, Ernst. "Disparity in the Salaries and Appointments of Academic Women and Men: An Update of a 1988 Report of Committee W on the Status of Women in the Academic Profession American Association of University Professors." American Association of University Professors. Also available on the Internet at <http://www.aaup.org/Wrepup.htm>. Accessed November 1, 1999.

Despite the fact that salary disparities between male and female academicians have decreased, the differences are still significant. Although female participation in scientific careers is increasing, the number of women in high-paying positions is still far less than that of men. The paper considers several factors that contribute to continuing disparities between male and female scientists.

Bowman, Sharon, Ph.D. and Stacia Davis Hill, M.A., et. al. "It Takes a (Small) Village: Mentoring Black Women in the Academy."

This paper discusses mentoring for African-American and international black women who are graduate or undergraduate students. There are issues related to racial identity that may have an effect on the relationships between mentors and mentees. The article provides suggestions for improving the mentoring process for international and African-American women students, including broadening the image of mentor to include Caucasians.

Brennan, Mairin. "Reflections of Women in Science." C&EN. April 6, 1998, pp. 37-41.

The New York Academy of Sciences held a conference to discuss major issues facing women scientists and engineers. The conference emphasized the importance of mentoring and networking, as well as "risk taking" and "trade offs" in science and engineering careers. The status of women scientists working in private industry and government is better than that of women working in academia. However, in private industry, there are few women scientists in top leadership positions.

Catalyst. "Women Scientists in Industry: A Winning Formula for Companies." Published 1999. May be purchased via the Internet at <http://www.catalystwomen.org/research/research14.html>.

Catalyst, a nonprofit organization that works for the advancement of women into leadership positions, conducted a study that found that corporations do not aggressively recruit women into scientific careers in private industry. The report recommends strategies that the private sector can use to attract, recruit, and retain highly qualified female scientists.

Clewell, Beatriz Chu and Angela B. Ginorio. "Examining Women's Progress in the Sciences from the Perspective of Diversity." (Chapter 6). *The Equity Equation: Fostering the Advancement of Women in the Sciences, Mathematics and Engineering*. San Francisco: Jossey-Bass Publishers, 1996.

This chapter analyzes the status of underrepresented populations in science, mathematics, and engineering careers (SME) focusing on the educational experiences of these populations, from kindergarten to undergraduate and graduate levels. The chapter discusses factors or variables relating to achievement, performance, and participation in academic disciplines relating to science, medicine, and engineering. In addition, the chapter identifies areas of future research in the education and career advancement of underrepresented populations in SME.

Davis, Clinda-Sue and Sue Rosser. "Program and Curricular Interventions." (Chapter 7). *The Equity Equation: Fostering the Advancement of Women in the Sciences, Mathematics and Engineering*. San Francisco: Jossey-Bass Publishers, 1996.

This chapter examines the effectiveness of federal investments in program intervention and curriculum reform in science, medicine, and engineering. The chapter identifies effective interventions at the undergraduate and graduate education levels. The authors also outline a model of science curriculum reform. In addition, the chapter identifies several effective science-teaching methods.

Dunkin, Mary Anne. "Polly's Spin." *Arthritis Today*. March-April 1999, pp. 41-42, 55.

The article discusses the career of Polly Matzinger, a researcher at the National Institutes of Health, who focuses on immunology. Dr. Matzinger has been questioning traditional paradigms with respect to the autoimmune system. The article outlines Dr. Matzinger's Danger Model hypothesis of the immune system, which challenges fundamental scientific beliefs and faces criticism from traditionalists in the scientific community.

Eisenhart, Margaret and Elizabeth Finkel. *Women's Science: Learning and Succeeding From the Margins.* Chicago: University of Chicago Press, 1998.

The book discusses the cultural alienation of women in the scientific community. Since society has traditionally discouraged women from entering scientific careers, less is expected from women who are involved in science. As a result of traditional societal bias, women scientists often internalize these lowered expectations, thus limiting their career advancement.

Herring, Susan C. "Gender and Democracy in Computer-Mediated Communication." *EJC/REC* Vol. 3, No. 2, 1993. <http://dc.smu.edu/dc/classroom/Gender.txt>. Accessed August 11, 1999.

The article evaluates claims that computers democratize communication with respect to males and females in two electronic academic discussion lists during the course of 1 year. The article finds that there is a tendency for a minority of males to dominate discussions. The author argues that this electronic form of communication may act as a form of censorship and limit the level of democratic discourse.

Massachusetts Institute of Technology (MIT). "A Study on the Status of Women Faculty in Science at MIT Numbers Faculty By Gender and School: October 1998." Written by Members of the First and Second Committees on Women Faculty in the School of Science. Available on the Internet at <http://web.mit.edu/fnl/women/Fnlwomen.htm>

A committee comprised of science faculty members studied the status of women faculty in science at MIT. The report found that many tenured female faculty felt "marginalized and excluded from a significant role in their departments." The report also found that the number of female faculty members has not experienced a significant increase in almost two decades.

The committee recommended strategies for improving the status of female faculty members and increasing recruitment of females and underrepresented minorities.

National Academy of Sciences. *Trends in the Early Careers of Life Scientists.* Washington, D.C.: National Academy Press, 1998. Written by Committee on Dimensions, Causes, and Implications of Recent Trends in the Careers of Life Scientists, Shirley Tilghman Chair. Also available on the Internet at <http://www.nap.edu/readingroom/books/trends/#contents>

This book examines the data concerning the production of doctorates in life science and the changes in the kinds of positions that graduates have obtained. It discusses the impact of those changes and suggests ways to deal with the challenges of supply versus demand for life science Ph.D. graduates. The book serves as an information resource for young scientists deciding on career paths.

National Institutes of Health. "Building Interdisciplinary Research Careers in Women's Health." Request for Applications OD-99-008. Release Date: September 7, 1999. Also located on the internet at <http://grants.nih.gov/grants/guide/rfa-files/RFA-OD-99-008.html>.

The Office of Research on Women's Health and co-sponsors invite institutional career development award applications to support research career development of junior faculty members, who have recently completed clinical training or postdoctoral fellowships, and who are commencing basic, translational, clinical, and/or health services research relevant to women's health. The goal of this initiative is to promote the performance of research and transfer of findings that will benefit the health of women.

National Institutes of Health. "Supplements to Promote Re-entry into Biomedical and Behavioral Research Careers." Request for Applications PA-99-106. Release Date: May 14, 1999. Also located on the internet at <http://grants.nih.gov/grants/guide/pa-files/PA-99-106.html>.

The National Institutes of Health (NIH) reannounces a program for administrative supplements to research grants to support individuals with high potential to re-enter an active research career after taking time off to care for children or parents or to attend to other family responsibilities. The aim of these supplements is to encourage fully trained individuals to re-enter research careers within the missions of all the program areas of NIH.

National Science Foundation. "Women, Minorities, and Persons With Disabilities in Science and Engineering: 1998." Arlington, VA, 1999. (NSF99-338). Also available on the internet at <http://www.nsf.gov/sbe/srs/nsf99338/>

This report is the ninth in a series of Congressionally mandated biennial reports on the status of women and minorities in science and engineering. The report documents both short- and long-term trends in the participation of women, minorities, and persons with disabilities in science and engineering education and employment.

Shibley Hyde, Janet. "Women's Slow Progress Up the Professional Ladder: Just One Big Schema?" *Contemporary Psychology: APA Review of Books*. February 1999, Vol. 44, No. 1, 31-33. Also located on the Internet at <http://www.apa.org/journals/cnt/feb99/cnt44131.html>

This article is a critique of Virginia Valian's book, *Why So Slow? The Advancement of Women*. The author examines factors that have traditionally hindered women's career advancement and critiques Valian's use of a schema approach to explain gender differences in career development and advancement.

Web Sites

American Psychological Association Women's Program Office

<http://www.apa.org/pi/wpo/>

The Women's Program Office coordinates the American Psychological Association's efforts to ensure equal opportunities for women psychologists as practitioners, educators, and scientists and to eliminate gender bias in education and training, research, and diagnosis. The web site contains information about academe, awards, conferences, and publications, including "Surviving and Thriving in Academia: A Guide for Women and Ethnic Minorities; Task Force on the Changing Gender Composition of Psychology" and "Women in the American Psychological Association and Women in Academe." In addition, the Office of Ethnic Minority Affairs web site, <http://www.wpw.org/pi/oema>, has a number of useful and informative publications with respect to the status of minorities in the field of psychology.

American Society for Cell Biology

<http://www.ascb.org/ascb>

This web site contains information about products, services, and meetings sponsored by The American Society for Cell Biology (ASCB). The site includes a Women's Resource Bureau, which is a list of prominent women scientists in a variety of fields who provide information for recommending excellent women scientists to study section membership and committee membership. In addition, members of the Resource Bureau can recommend women scientists who are also excellent and compelling speakers to meeting organizers. The site also contains an online monthly newsletter, which includes a column focused specifically on career advancement of women scientists. In addition, the site includes information about ASCB's Women in Cell Biology Committee.

**Arizona State University, College of Education
The IPEDS Interactive Database**

<http://129.219.88.111/ipeds/>

Accessed November 1, 1999

The web site contains a database developed by Arizona State University, College of Education. The database provides information on faculty salaries for different institutions and breaks out the data by gender.

Association for Women in Science

<http://www.awis.org>

The Association for Women in Science (AWIS) is an organization dedicated to the achievement of equity and full participation of women in all areas of science and technology. The web site provides information regarding AWIS programs and career development activities, including networking and mentoring opportunities. In addition, the web site contains information regarding scholarships and internship opportunities for women scientists.

**The Chronicle of Higher Education
"Career Network" Web Page**

<http://www.chronicle.com/jobs>

The web page contains advice about job hunting and other career-related issues, such as balancing work and family life. The site contains a searchable database of job announcements. In addition, the site provides useful information about the current job market. Also included is a section entitled "Ms. Mentor," which provides guidance about career advancement specifically for women.

Institute for Women and Technology

<http://www.iwt.org>

This organization aims to "imagine, design, create, and deploy technologies that have positive impacts on women around the world." The web site contains information about the organization's events and activities, research and development projects, and outreach initiatives.

The Math/Science Network

<http://www.elstad.com/msn.html>

The Math/Science Network (MSN) is a non-profit organization of educators, scientists, mathematicians, parents, community leaders, and government and corporate representatives whose mission is to promote the continuing advancement in mathematics and science education of all people, with particular emphasis on the needs of women and girls. The web site contains information about MSN history, membership, and programs, such as the "Expanding Your Horizons in Science, Mathematics, and Engineering" program.

**Office of Research on Women's Health
National Institutes of Health**

<http://www.od.nih.gov/orwh/>

The web site provides information about Office of Research on Women's Health (ORWH) career development initiatives for women scientists. The site contains information about the inclusion of women in health research. In addition, the site contains a comprehensive women's health research agenda that is followed by ORWH. Information regarding ORWH committees, meetings, and special events can also be accessed on this web site.

**Pathways to Careers for Young Women in
Mathematics, Science, and Technology**

<http://www.moo.tappedin.org:8000/>

Accessed November 1, 1999

This web site, developed by SRI International, provides biographies on women scientists and mathematicians. The site gives female students an opportunity to connect with mentors and engage in online discussions.

Sociologists for Women in Society

<http://socsci.colorado.edu/sws/index.html#general>

Sociologists for Women in Society is an organization of social scientists fostering social equality for women. The web page contains information about awards and scholarships for women's health.

The Women in Biology Internet Launch Page

<http://pingu.salk.edu/percent7Eforsburg/bio.html>

The site is a starting point for finding information about women biologists. The site provides lists of links to available information on the web regarding women in biomedical sciences, especially information relevant to women who are graduate students, postdocs, or more senior scientists. The topics range from science education, to practical career issues, to the history of women in science.

WISENET

<http://www.math.purdue.edu>

WISENET was set up to provide a way for women in science and engineering to meet with others having similar interests. There are no guidelines as to topic, presuming that women with some similarities in interest and background, and likely to be in a minority in their place of employment, will find it helpful and useful and supportive to talk with others about many things. The list is unmoderated. To subscribe to WISENET, send email to LISTSERV@uicvm.uic.edu. Leave the subject blank and in the body of the message type: SUBSCRIBE WISENET (your full name and email address).

Women in Science

<http://library.advanced.org/20117/>

This web site allows visitors to learn about women of the past and present who are involved in science. The site contains an International Registry for Women in Science, which allows women scientists to connect with each other. The site also contains a Mentoring Area, where female scientists can seek out mentors or learn about particular fields of science. In addition, the site provides a Chat Room that allows female scientists to engage in dialogue.