
STATUS

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

January 1996

Toward Fairer Job Searches A Summary of the June AAS CSWA Session

by Nadine G. Barlow

What constitutes a fair and open job search? This is a question which has created considerable discussion on the AASWOMEN network over the past year. On June 13, 1995, at the CSWA session during the AAS meeting in Pittsburgh, Marc Kutner presented the draft of a resolution to be submitted to the AAS Council on procedures for a fair job search. The idea of this resolution is to provide guidelines for employers wishing to advertise in the Job Register or to use the Job Center.

The guidelines are subdivided into five sections containing recommendations on what employers should do before the job ad goes out, writing the job ad itself, conducting the search, after the job is filled, and dealing with the two-career situation. Since the recommendations are still in an early stage of formation, much discussion by the approximately 50 attendees occurred and many of the issues will be addressed by Kutner in the next version of the recommendations.

Before the Job Ad—Draft Guidelines

Before the job ad is ever written, employers need to have a good idea of what kind of person they are looking for. A common error conducted by employers is to make the criteria too narrow or rigid--then they either know exactly who they want to hire or have some preconceived prejudices about what qualities the best person for the job will display. The key is to know what kind of person you are looking for without restricting your possibilities too narrowly.

A search committee needs to be formed before the job ad goes out. This committee should include representatives of all groups which will be affected by the hire, including

students if the advertisement is for a teaching/faculty position. Employers also need to realize that they will get a large number of applications for the job. The committee needs to make the commitment to treat each applicant seriously and to make sure there is enough money to bring in a reasonable number of people (usually 3 to 5) for on-site interviews.

The Job Ad—Draft Guidelines

The job ad should include as much information about the job as possible. Job ads are generally very terse due to space limitations, so the ad must be constructed carefully so that the phrasing of the sentences clearly indicates their meaning. If funding is uncertain, the ad should give some idea of when that issue will be decided. If there is a possibility of hiring someone at a higher level than that indicated in the ad, this should be clearly noted so that all qualified applicants have a fair shot at that higher level. If internal candidates are being considered for the job, this also should be stated in the ad so the outside applicant knows what s/he is up against.

At least one member of the search committee should be listed as a contact for questions about the job. This person's telephone number and e-mail address should be provided in the ad. This person must be willing to talk candidly to any prospective applicant about the job and about the qualifications of any internal applicants.

Employers should not ask all applicants to furnish letters of recommendation (as opposed to just the name of references) unless they really plan to read hundreds of letters.

Contents

| | |
|----------------------------------|----|
| Fair Job Searches? | 1 |
| DPS CSWA Meeting Summary | 3 |
| WorkingWomen Count! | 5 |
| Space for Women Day at CfA | 9 |
| Personal Reflections on | 8 |
| From the Editor | 10 |

Employers should only request letters for those candidates who are being seriously considered.

Job ads should be circulated as widely as possible, not just in the AAS Job Register.

The Search—Draft Guidelines

Each application should be treated seriously. This might involve the employer making her/his own judgments about the scientific work of the applicant rather than simply relying on letters of recommendation. Employers should not use the large number of applicants as an excuse to apply irrelevant arbitrary standards to make cuts.

Many employers are now using telephone interviews to make their first cut through the applications. Telephone interviews should be used sparingly and conscientiously--people who impress us most on the phone are people who are just like us! There is some question about legal ramifications of such a technique since the Privacy Act forbids personal information being given over the phone. Legally, only the dates of employment should be discussed. It was noted that fear of lawsuits is causing some companies to discourage employees from writing letters of recommendation, so telephone discussions are sometimes the only way to get a recommendation out of a person. Due to the Privacy Act, this procedure also may be illegal.

The use of telephone interviews engendered much discussion. Many people noted that most employers have only a limited amount of funds to bring applicants for on-site interviews, so many use the telephone to interview more people before making the first cut. Everyone agreed that the person needs to be told that the telephone call constitutes an interview. Some people felt that the telephone interview was unfair to the applicant since s/he cannot see the reactions of the committee or use gestures to emphasize a point. The other concern raised was the situation where only one person interviews the candidate then reports back to the committee. This is dangerous because the entire information that the committee receives about the applicant is filtered through the one person who talked to the applicant. Telephone interviews between the applicant and the entire committee were strongly encouraged.

Once a short list of three to five candidates is selected, face-to-face interviews should be conducted. Therefore employers should be sure to have enough funds to bring in the top three to five candidates for on-site interviews.

At no point in the evaluation process should questions about marital status, sexual orientation, or children be raised or such information (if obtained otherwise) be used in deciding the qualifications of the applicant. Such behavior may be legally actionable. If an applicant feels that the employer is indirectly asking for such information, s/he should ask "what are you really asking?". Find out why they want the information and determine a polite way to answer or not answer the question.

Employers should not make a last minute switch in the scope or level of the position that goes beyond the boundaries of the job ad. Many times position requirements evolve after the job ad goes out. Everyone agreed that the job requirements do not have to be "cast in stone" but the qualifications of the preferred candidate cannot change from what is stated in the job ad.

If the employer is considering both a woman and a man who are equally qualified for the position, both should be offered the same package, which includes not only salary, but also research start-up money, benefits, etc.

After the Job is Filled—Draft Guidelines

Rejection letters should be sent out to all unsuccessful candidates. They should say who was hired and contain a brief statement of the qualifications of the hired person. We recommend that a report be filed with the AAS which provides information on the number of applicants, number for whom letters of recommendation were sought, number interviewed by phone, number interviewed off-site (such as at the Job Center), number interviewed on-site, number interviewed on-site more than once, number to whom job was offered, and the identity and qualifications of the person taking the job. In each category there should be a breakdown showing the number of women or minorities and the number of internal people. This report also should state where the job was advertised. If the job is not filled, the reasons should be given.

We recommend that the AAS maintain a data base with this reported information, sorted by organization, so that future applicants can check on the past hiring performance of that organization. Several attendees wanted to know how the Executive Office was going to enforce this policy and make people submit reports. The consensus was that the Executive Office should not spend its resources taking the initiative to make organizations submit reports, but it can keep track of who does not submit a report and not allow them to relist with the Job Register or Job Center. It was noted that this type of information is required anyway by Affirmative Action, so it would not be extra work for the

STATUS is published in January and June by the American Astronomical Society, 2000 Florida Avenue, NW, Suite 400, Washington DC 20009.

Contributed articles are accepted. These articles reflect the opinions of the authors, which is not necessarily the opinion of the AAS. STATUS is published for the personal use of AAS members.

Edited by

Dr. Kathryn N. Mead, NRAO, Campus Building 65, 949 N. Cherry Ave., Tucson, AZ 85721, kmead@nrao.edu

AASWomen is the CSWA's electronic newsletter, edited by Prof. Debra Elmegreen, CSWA Chair. Issues are published as e-mail once per week and consist solely of reader contributions in a dialogue-like atmosphere. To get on the mailing list or to contribute, send e-mail to **AASWomen@vassar.vassar.edu**.

hiring organization to make a copy for the AAS.

The Two-Career Situation—Draft Guidelines

The two-career situation is deemed to exist when the applicant has a significant other with a career/profession that would be adversely affected by simply moving to the location of the job in question. The employer can range from wanting to make the job as attractive as possible for the applicant to using the existence of a second career to decide against hiring the applicant. When the two-career situation exists, male and female applicants should be treated equally by the employers--questions should not be asked of one that would not be asked of the other and no assumptions about relative importance of career versus family should be made. Questions about the possibility of a two-career situation should not be raised by an employer in the initial screening or in a first interview and at no point should issues related to marital status be used in evaluating the qualifications of the applicant (including if the applicant refuses to answer questions about marital status). The appropriate time for the employer to raise the issue is when an offer is about to be made so the issue can be negotiated along with the general package. The applicant should feel free to raise or not raise the issue at any point in the search, but it should not be held against the applicant if they wait until an offer is made or imminent to raise the issue. Obviously each applicant-other situation is unique and flexibility is needed on both sides.

Open Discussion

The audience approved of Kutner's draft resolution to be submitted to the AAS Council on the procedures for a fair job search with minor changes. In the general discussion which followed, a number of related activities were suggested, such as expanding the Job Register beyond academic distribution and doing sessions at AAS meeting about hiring which would include people in nontraditional careers. There also was discussion about the number of students being graduated from astronomy departments when the number of traditional jobs are shrinking due to reduced resources. Some people suggested that the curriculum for astronomy graduate students should be changed to include more courses in engineering, instrumentation, and teaching so that students are prepared for careers in areas other than astronomy research and academia. This topic will obviously continue to engender much discussion at upcoming CSWA

sessions.

Nadine Barlow is a member of the CSWA and President of Minerva Research Enterprises, Houston Texas

EDITOR'S NOTE: BASED ON FEEDBACK AT THE SESSION AND COMMENTS IN AASWOMEN AND E-MAIL TO MARC KUTNER, KUTNER IS PREPARING A REVISED VERSION OF THE GUIDELINES WHICH HE PLANS TO CIRCULATE IN TIME FOR ACTION AT THE JUNE 1996 AAS MEETING. PLEASE SEND E-MAIL TO MKUTNER@NRAO.EDU FOR A COPY OF THE GUIDELINES OR FOR OTHER COMMENTS.

October DPS CSWA Session

by Beatrice Muller

Meeting of the Committee for the Status of Women in Science during the Division for Planetary Science Meeting, Wednesday, noon-1:30pm, Oct. 11, 1995 at the Kohala Coast, Hawaii.

Changing the meeting from an evening to a lunch meeting had the benefit of not conflicting with other events and we had an attendance of roughly 25 people. We had two topics:

(1) An informal panel discussion about 'Writing a winning proposal' with Reta Beebe (NMSU), Bonnie Buratti (JPL), Wendy Calvin (USGS), and Ann Sprague (LPL), talking about their experience participating in review panels and their perspective on what is important for proposals.

(2) Targeting exceptional women for award nominations.

Reta started out with some statistics showing that only a few percent of proposals get funded and funding for new proposals is even lower. All agreed that it is therefore important to do half the work before submitting the proposal. Talk to the proposal contact person, ask a lot of questions, find out what the 'hot' topics are, contact people who got funded and find out about their proposal. Get the names of people who served on earlier panels and put them on your preprint list. Name recognition counts. For the proposal itself, isolate a problem, focus on it, and propose for the maximum amount of time. Make sure, you include the big picture and the relevance to the program you are proposing to. Include preprints in your proposal. First author papers are important. Sell your proposal. It is very rare that a first time applicant gets funded. Do not give up. Read the comments from the review panels carefully, improve your proposal and try again. And don't forget, that luck also plays a role. A lively discussion followed with additional people sharing their experience with writing proposals and sitting on panels.

On the second topic, we agreed that if women don't get nominated for awards they cannot get awards. A discussion started how to improve this situation. We did not want to

act as a 'lobby'. Award nominations take time, mostly to gather the relevant information needed for supporting a candidate. Raising the awareness of what is needed and collaborating with each other using our network seemed to be a good starting point. Making a small commitment of not tossing out the next call for nominations thinking others will surely do it comes to mind, too.

The meeting was very successful and I hope that all the participants got as much inspiration from it as I did. The above excerpt is my impression of the meeting and is by no means complete or objective.

Beatrice Muller is Chair of the DPS CSWA and a Research Associate at Kitt Peak National Observatory/ National Optical Astronomy Observatories, Tucson, AZ

"Space for Women Day" at the Center for Astrophysics

by Julie Corliss

Nearly 40 young women, teachers, and parents attended the Harvard-Smithsonian Center for Astrophysics' fourth "Space for Women" day, on Saturday, October 14th, 1995. Designed to encourage high-school-age women to pursue careers in the physical sciences and related fields, the day-long symposium was held on the 20th anniversary of the original conference, entitled "Earth in the Cosmos: Space for Women." Similar conferences were held in 1992 and 1993.

The conferences were sponsored by the CfA's Women's Program Committee, which provides programming for the recruitment, retention, and professional development of women at the CfA. At its inception in 1974, the committee was headed by geologist Ursula Marvin and astronomer Martha (Liller) Hazen, who both helped organize the first conference. Held in 1975 in celebration of the International Women's Year, it drew more than 300 young women and featured women speakers and panelists working in a variety of capacities, including research scientists from several parts of the country, editors, computer programmers, administrators, and engineers. A popular booklet, entitled "Space for Women: Perspectives on Careers in Science" grew out of the conference. In addition to suggestions on how to prepare for scientific or science-related careers, it detailed several of the major issues raised at the conference, juxtaposed with thoughts expressed by different participants.

An updated version of the booklet with the same name was published in March 1995. The new, 20-page, color booklet features full-page profiles of women who work at the CfA, ranging from scientists to administrators, describing their backgrounds and training, and highlighting their

accomplishments as well as their everyday duties. Like its predecessor, the booklet also has practical information about how to prepare for a scientific career, such as advice on coursework, choosing a college, finding mentors, and more. An appendix lists materials, organizations, internships, and other resources of assistance to aspiring scientists. To date, nearly 12,000 copies of the booklet have been distributed (mostly by individual request), and a second printing is underway.

Participants in this year's conference received a copy of the booklet, along with reading lists and information on astronomy resources (clubs, museums, etc.) in the New England area. Following a welcome by current WPC coordinator and solar physicist Shadia Habbal, the conference began with an introduction by Marvin, who shared her experience and insight both as a scientist and as the organizer of the original conference.

Astrophysicist Rosanne Di Stefano gave the keynote address, detailing her research endeavors on super-soft x-ray sources, gravitational lensing, and the search for dark matter. Science historian Barbara Welther presented a brief history of women astronomers at the Harvard College Observatory in the early 1900's, and astronomer Tania Ruiz talked about "Backyard Astronomy--or how to get involved in astronomy NOW."

The morning also included a panel discussion on career opportunities in astronomy, moderated by astrophysicist Jonathan McDowell and featuring planetary scientist Jane Luu, science education specialist Nancy Finkelstein, radio astronomer Suzanne Huettemeister, computer programmer Sumitra Chary, and Harvard undergraduate Rachel Osten, who works in the CfA's High Energy Astrophysics division. Before breaking for lunch, the participants split into small groups led by participating scientists, during which the students were encouraged to discuss and ask questions about topics in astronomy.

Following a catered pizza lunch, participants signed up for two of the following tours: "The Great Comet Crash," featuring a slide show and talk about comet Shoemaker-Levy 9's crash into Jupiter last summer by Jane Luu; "The Sun," including "live" solar observing on computers with Tania Ruiz and astrophysicist Han Uitenbroek; "The Stuff Between the Stars," with a tour of the CfA's radio telescope by Susanne Huettemeister; and "Building a Space Satellite," featuring a tour of the Advanced X-ray Astrophysics Facility's mirror-testing lab with physicist Suzanne Romaine.

Conference organizers included Julie Corliss, Kim Dow, Nancy Finkelstein, Shadia Habbal, Susanne Huettemeister, and Donna Thompson. Additional support was provided by

Jim Cornell, Amoreena Gonzalez, Jiahong Juda, Amy Mossman, and Andrea Prestwich.

Julie Corliss is a public affairs specialist at the Harvard - Smithsonian Center for Astrophysics.

Results of Working Women Count! Questionnaires for Los Alamos National Laboratory

by Wendee M. Brunish

I. Introduction

The Los Alamos Women in Science, a chapter of the New Mexico Network for Women in Science and Engineering, distributed about 3000 questionnaires to women at the Los Alamos National Laboratory (LANL), including both UC employees and contractors. We received a total of 1034 responses. The questionnaires were filled out in late August and early September 1994. The responses to those questionnaires are reported below.

II. Workforce

Job Description (Questions 1 through 3)

About one-third of the LANL respondents are in clerical/support positions, and about one-third are professionals (scientist, engineers, etc.). One-sixth of the respondents described themselves as technical workers (technicians, programmers, etc.), while one in ten of the surveys returned was from a manager. Over 90% said they had only one paid job, although several mentioned other unpaid work, as well as school and other commitments. Two-thirds of the respondents work a 40 hour, but many mentioned that they often work more than 40 hours without additional pay.

Personal and Family Statistics (Questions 10, 14 and 15, 17 and 18)

Approximately a third of the respondents, both locally and nationally, are between 35 and 44, with another third younger than 35 and the remaining third 45 and older. 61% of the LANL respondents are married. 45% of respondents have children under 18 living at home. Of those with children living at home, 85% have one or two children, and over half report that their youngest child is 7 or older. 31% of the LANL respondents identified themselves as Hispanic, while only 2% described themselves as Asian, and 4% as Native Americans. A single questionnaire was returned by a Black woman. A small but vehement fraction (about 5%) refused to provide ethnicity information and questioned why such information was being collected.

Education and Salary (Questions 11 through 13)

Almost sixty percent of LANL respondents have a college or postgraduate degree, compared with 35% in the national sample. 26% of the respondents in the national sample earn between \$25,000 and \$50,000, compared to 59% at LANL. The percentage of LANL respondents with salaries over \$50,000 is three times that in the national sample.

III. Workplace Issues

Job Satisfaction (Questions 4 and 6)

Although 18% of the respondents said that they loved their job, and 54% said that they like it, this compares with a national response of 21% loved their job and 49% liked it. When asked what they liked most about their job, the most frequent response was "good benefits", followed by "I like what I do", "I am productive", "I am paid well", and "My hours are flexible". In the national survey, "I am productive" was not listed in the top five, instead "I enjoy the company of my coworkers" was in the top five.

Check out the **CSWA Web page** at

<http://www.physics.sfsu.edu/csua/astro.html>

Approximately one-third of the respondents in the national sample cited flexible hours, while only 27% of LANL respondents mentioned a flexible schedule. Very few women cited "authority to get job done", or job security, possibly indicating that most are dissatisfied with these things at LANL.

Problems in the Workplace (Question 5)

When asked what issues were problems for them at work, the most serious problems were not getting paid what the job is worth (46% considered this most serious, very serious or somewhat serious), too much stress (45%), and worried about losing their job (37%). In contrast, in the national survey, the number three concern was getting better benefits. One quarter of the LANL respondents stated that they knew someone who had lost a job or promotion because of race or gender and considered this a serious problem.

Benefits and Opportunities (Question 7)

When asked to rate various aspects of their job, more than two-thirds said that their vacation and sick leave were excellent or good. Less than 10% said that their vacation and sick leave were poor or non-existent, compared with more than a third of the national sample. Almost two-thirds rated their health care benefits, retirement benefits and schedule flexibility as good or better. More than half said that their pay was at least good, and that their job was challenging and interesting. More than half said that training opportunities support for family responsibilities were good or fair. However, fully 65% of LANL respondents said that their ability to advance was only fair or worse.

Towards a Better Workplace (Question 8)

When asked to choose which improvements would create a better workplace, respondents cited improving pay scales, equal opportunity, and on-the-job training as their top three. Also considered important was health care insurance for all employees. LANL women employees also feel that giving more responsibility to employees for getting their job done would be an important improvement in the workplace. Flexible work hours and paid family leave were less important while student loans were rated significantly less important. Child care rated very low for the employee population as a whole, but for those with child care responsibilities, it rated the in the top six. In comparison with the national survey, LANL respondents gave a lower priority to paid leave and health care insurance, and a slightly higher priority to equal opportunity, on the job training and increased responsibility for getting their jobs done. Both national and LANL respondents rated improving pay scales as very important, regardless of whether they rated their own pay and benefits as excellent, perhaps indicating their concern for women less fortunate than themselves.

IV. Summary of Statistical Results

1. *Would you describe your main work for pay as:*

| | |
|----------------------|-----|
| Clerical/support | 37% |
| Executive or Manager | 10% |
| Professional | 31% |
| Technical | 16% |
| Other | 2% |
| No response | 4% |

2. *How many paid jobs do you have?*

| | |
|---------------|-----|
| One | 91% |
| Two | 6% |
| Three or More | 1% |
| No response | 2% |

3. *How many hours a week to you work for pay?*

| | |
|-------------|-----|
| 15-29 | 3% |
| 30-34 | 4% |
| 35-39 | 1% |
| 40 | 66% |
| 41-48 | 8% |
| 49-59 | 5% |
| 60+ | 2% |
| Other | 1% |
| No response | 10% |

4. *The things you like most about your job are (check up to 3)*

| | |
|----------------|-----|
| Paid well | 30% |
| Good benefits | 42% |
| Flexible hours | 27% |

| | |
|--------------------------------|-----|
| Job training | 24% |
| Authority to get job done | 15% |
| Job security | 6% |
| I am productive | 30% |
| Company of coworkers | 24% |
| Learn new things | 27% |
| Like what I do | 36% |
| Like working as part of a team | 27% |
| Other: | 3% |

6. *How do you feel about your job overall?*

| | |
|-------------------|-----|
| Love it | 18% |
| Like it | 54% |
| OK | 22% |
| Dislike it | 3% |
| Totally miserable | 1% |
| No response | 2% |

10. *What is your age?*

| | |
|-------------|-----|
| under 25 | 5% |
| 25-34 | 26% |
| 35-40 | 33% |
| 45-54 | 26% |
| 55+ | 4% |
| No response | 6% |

11. *What is the highest level of education you have completed?*

| | |
|----------------------------------|-----|
| less than high school | 0% |
| high school diploma or GED | 7% |
| some college or technical school | 30% |
| college degree | 34% |
| postgraduate degree | 25% |
| No response | 4% |

12. *How much do you earn each year before taxes?*

| | |
|-----------------|-----|
| less than \$10K | 1% |
| \$10K to \$25K | 21% |
| \$25K to \$50K | 59% |
| \$50K to 75K | 15% |
| More than \$75K | 2% |
| No response | 2% |

13. *What is your total household income before taxes?*

| | |
|-----------------|-----|
| less than \$10K | 1% |
| \$10K to \$25K | 9% |
| \$25K to \$50K | 28% |
| \$50K to 75K | 26% |
| More than \$75 | 32% |
| No response | 4% |

14. Are you:

| | |
|---|-----|
| living with someone | 7% |
| married | 61% |
| single, divorced, separated or widowed | 29% |
| No response | 3% |

15. Do you have children under the age of 18 living at home?

| | |
|-------------|-----|
| No | 52% |
| Yes | 45% |
| No response | 3% |

IF YES, How many?

| | |
|---------------|-----|
| One | 40% |
| Two | 45% |
| Three or More | 15% |

IF YES, Age of youngest child?

| | |
|-----------|-----|
| < 1 year | 7% |
| 1-2 years | 14% |

| | |
|-------------|-----|
| 3-4 years | 13% |
| 5-6 years | 12% |
| 7-12 years | 31% |
| 13-17 years | 21% |
| 18 and over | 1% |
| No response | 1% |

16. What state do you live in?

| | |
|--------------|-----|
| NM | 95% |
| Other states | 4% |
| No response | 1% |

17. Just to make sure we're hearing from people of all races, could you indicate your racial designation:

| | |
|----------------------|-----|
| White | 71% |
| Black | <1% |
| Asian | 2% |
| Native American | 4% |
| Other (Hispanic) | 16% |
| Other (non-Hispanic) | <1% |
| No response | 7% |

18. What is your ethnic origin:

| | |
|-----------|-----|
| Hispanic | 31% |
| Other | 43% |
| No answer | 26% |

5. Are any of the following issues a problem for you at work? (If so, check off how serious a problem it is. If not, check DOESN'T APPLY): (MS=Most serious; VS=Very serious; SS=Somewhat serious; NV=Not very serious; NS=Not at all serious; NA=doesn't apply)

| | MS | VS | SS | NV | NS | NA |
|--|-----|-----|-----|-----|-----|-----|
| Not paid what job is worth | 12% | 10% | 24% | 13% | 12% | 22% |
| Need better benefits | 5% | 5% | 9% | 15% | 25% | 32% |
| Work too many hours | 3% | 5% | 11% | 19% | 26% | 30% |
| Losing my job | 7% | 8% | 22% | 21% | 17% | 18% |
| Flexibility for family | 3% | 4% | 14% | 20% | 23% | 28% |
| Too much stress | 8% | 12% | 25% | 24% | 13% | 12% |
| No skills for better job | 3% | 5% | 13% | 16% | 20% | 33% |
| Affordable child/elder care | 6% | 7% | 9% | 6% | 8% | 57% |
| Lost job/promotion because of race/sex | 7% | 4% | 7% | 6% | 14% | 51% |
| Know others lost job/promotion due to race/sex | 8% | 8% | 9% | 6% | 10% | 49% |
| Other problems: | 12% | 10% | 24% | 13% | 12% | 22% |

7. Please rate the following aspects of your job (E=Excellent, G=Good, F=Fair, P=Poor, N=None, NA=doesn't apply):

| | E | G | F | P | N | NA |
|----------------------|-----|-----|-----|----|----|----|
| Pay | 11% | 44% | 33% | 9% | 0% | 0% |
| Flexible schedule | 18% | 43% | 28% | 5% | 2% | 1% |
| Health care benefits | 25% | 40% | 16% | 5% | 2% | 2% |
| Retirement benefits | 22% | 39% | 15% | 5% | 6% | 2% |
| Vacation | 43% | 26% | 11% | 6% | 1% | 0% |
| Sick Leave | 40% | 28% | 11% | 9% | 0% | 1% |

| | | | | | | |
|-------------------------------------|-----|-----|-----|-----|----|-----|
| Ability to Advance | 5% | 18% | 32% | 28% | 4% | 1% |
| Challenging and interesting | 17% | 38% | 25% | 8% | 1% | 1% |
| Job security | 6% | 30% | 34% | 13% | 3% | 0% |
| Training | 12% | 37% | 26% | 10% | 2% | 1% |
| Support for family responsibilities | 9% | 32% | 23% | 8% | 2% | 14% |

8. Here's a list of changes that might provide you with a better workplace. Please let us know how important each item is to you by rating each one from 0 (not important to you) to 10 (very important to you). You may use any number more than once:

| | Average | 0-3 | 4-7 | 8-10 | No response |
|-------------------------------------|---------|-----|-----|------|-------------|
| More flexible work hours | 6.4 | 19% | 25% | 40% | 16% |
| Support for dependent care | 3.6 | 46% | 17% | 21% | 16% |
| Equal opportunity workplace | 7.8 | 8% | 20% | 59% | 13% |
| Paid leave newborns/ill relatives | 6.2 | 20% | 25% | 40% | 15% |
| On job training learn new skills | 7.8 | 6% | 23% | 57% | 14% |
| Student loans courses/job skills | 5.2 | 28% | 25% | 30% | 17% |
| More responsibility to do job | 7.4 | 8% | 27% | 50% | 15% |
| Health care insurance all employees | 7.3 | 13% | 18% | 51% | 18% |
| Improving pay scales | 7.9 | 8% | 19% | 58% | 15% |

Other: freedom from harassment

9. If you could tell President Clinton one thing about what it's like to be a working woman, what would it be?

There were two main messages here. One is that women feel that gender, racial, and age discrimination, as well as sexual harassment, are pervasive and have a negative effect on their careers. They feel that they have little chance for advancement, and that they do not receive equal pay for equal work. The second message is that being a working woman is tough and it is stressful. Juggling the demands of work and family while battling the above mentioned obstacles leads many women to feel tired, discouraged and conflicted.

V. Summary of Responses

As in the national survey, the chief concerns of women at LANL center around being overworked and underpaid. Women feel, and statistics support their perception, that they are not paid what their job is worth, and particularly that they are paid less than men doing equivalent work (U. S. Bureau of the Census, Current Population Reports, Series P60-172, Money Income of Households, Family, and Persons in the United States, 1989). Women are under a great deal of stress at work, exacerbated by the demands of family and household responsibilities. At LANL, the stress is compounded by the perceived lack of job security due to politically driven funding uncertainties. Women with minor children are faced with problems in obtaining and paying for quality child care. (Recently published reports on child care nationwide indicate that quality child care is indeed very hard to find.) Nevertheless, most women at LANL like their jobs and appreciate the excellent benefits they receive, including vacation and sick leave, health care insurance, and retirement plans. It should be noted that the contractor population, in sharp contrast, is very concerned about their lack of or the inadequacy of benefits. Women at LANL are concerned

about the lack of advancement opportunities, lack of pay equity, and the persistence of discrimination on the basis of gender or ethnicity in promotion and hiring.

There are other improvements to the workplace that women would like to see. These include wider availability of health care insurance, more opportunities for on-the-job training to enhance their skills and improve their advancement possibilities, and more responsibility given to employees for how they get their job done.

Wendee Brunish is an astrophysicist and project leader for Comprehensive Test Ban Treaty research at Los Alamos National Laboratory.

Personal Reflections on Extra Obstacles for Women in Science

by Jean Chiar

One of the biggest problems that young girls face is simply that they are not encouraged, and are sometimes discouraged, from going into science. An additional problem is that some girls/women tend to "drift" along in classes. In other words, when they aren't following along in lecture, they assume they are the only one who "doesn't get it." This feeling leads to fear of both asking questions in class and seeking help outside of class and has obvious detrimental effects on the learning process. Although there are certainly boys/men that fall into this category, more often than not, they are more outspoken in class and in many cases get more attention from the instructor. These

two problems are among those that I have faced since I became interested in science. I'll start with my high school education, since this is where I feel the real challenge began.

The first high school I attended was an all-girls private college-prep school. I remember being disappointed when I discovered early on that there were no "honors" classes in any subject. I was told that we were all expected to be honors students, so special classes weren't necessary. A few of us who were ahead in math went into the next grade's math class, but the most advanced math offered was pre-calculus. Science in 9th and 10th grade was biology. None of us could figure out why biology was spread over two years, but we all thought the reason was that there weren't enough science instructors to teach 4 different subjects over 4 years. Biology started to get a little boring after the first year and overall, I didn't feel very challenged. I was also discouraged by the fact that there were no advanced placement (AP) courses in math or science (although, to be fair, there were AP History and English offered to seniors). There didn't seem to be any extra offerings outside of the regular curriculum.

Physics class was optional for us; I can't remember whether it was offered junior or senior year. In any case, I was very enthusiastic about taking it. I was surprised to find out that none of my closest friends (3 or 4 other girls) were even considering taking physics. None of them was planning on a science major in college and they thought the class would be too difficult. I was very discouraged with their reaction. I didn't think I was going to be well-prepared for college math and science courses.

Fortunately, around my second year in high school my family moved to a town (just a few miles from our old house) where the public school had an excellent reputation for their strong math and science curriculum. So, I arranged to go visit for a day and it didn't take me long to decide to switch schools starting in 11th grade.

Before classes started, I met with the guidance counselor to decide which classes to take. I assumed I would be able to sign up for the honors and AP math and science classes. I was encouraged to sign up for the AP physics class, but apparently, the school was very select about who they let in to the honors math class. They told me my grades weren't high enough to be allowed into the class. I couldn't believe it. After going through all the trouble of transferring schools for the purpose of taking advanced classes, I couldn't sign up for honors calculus. So, I did my best to convince both the instructor and the guidance counselor that I would do well in the course. They gave in; I was registered for the class on a probationary basis and would only be allowed to continue in the honors math sequence if I got an A in the class. Needless to say, this was going to be no small feat.

It seemed that for most of the other kids in the class, understanding came easily and they didn't need to study to get good grades. I tried not to let that discourage me and I bought every calculus review book I could find and did problems until I had none left to do. It wasn't easy, I was borderline A/B throughout the year. To make things even worse, a guy in the class noticed that in the role book, my name had an asterisk next to it. He asked the instructor, in front of the entire class, why that mark was there. Now everyone knew that I was struggling to remain in the class. I could only imagine how embarrassed I might have felt if I weren't in the advanced calculus class the following year. Fortunately, I never had to face that embarrassment. I made it to the class the following year. Since I had gotten into such good habits by doing practice problems the previous

Please Contribute to STATUS'S Publication Costs.

The cost to print and distribute STATUS is approximately \$2.17 per year for issues that can be mailed for 32¢. This issue is longer than usual so requires additional postage.

The Editor recognizes that it is difficult for readers to justify contributions to the AAS in addition to the \$105 regular membership fee. On the other hand, a few dollars is not much to spend to support this publication which is a tangible demonstration of the belief that fairness and equal opportunity are important and achievable for all astronomers.

Thus, the Editor suggests a contribution of \$5 *per reader*. Please send your tax-deductible contribution of any size to: STATUS Support Fund, AAS, Suite 200, 2000 Florida Avenue, NW, Washington DC 20009
Please make checks payable to AAS/STATUS.

year, I did very well in the class. There were very few exams that I didn't get the top grade (everyone always knew what everyone else got since the class was small and the top grade was always announced by the instructor). I even consistently beat the guy that had seen the asterisk next to my name!

My brother, who is a year older than I, naturally started applying to college the year before I would start applying. RPI was one of his first choices and he had all the catalogs and such. I looked through them and was immediately interested. When the time came for me to apply, RPI was the only place I wanted to go to. My parents tried to encourage me to go to a small liberal arts school and discouraged me from applying to RPI. They told me I would never survive in such a male-dominated environment. Well, it turns out that I got a small scholarship to attend RPI, so they just couldn't say no.

During my freshman and sophomore years, I wasn't exactly

getting all A's. I certainly wasn't close to getting D's or F's, but I don't think I was really grasping all that was being taught. I never asked questions in class and although I occasionally asked the professor or TA for help, I didn't do it often enough to really learn the material well. I got by with B's (and some C's) mostly because I spent a lot of time on my homework and that always helped my grade. Unfortunately, I wasn't really acquiring the knowledge I would later need to take graduate level courses. I got involved in undergraduate research at an early stage. The main reason for this is that my brother had talked about the research he was doing in school and it sounded like fun. I don't think I completely understood what doing research meant, but it was definitely something I wanted to do soon. Of all the physics classes I had taken, I was most interested in astronomy. I started in my hunt for a research project in the second semester of sophomore year. I asked the astronomy/astrophysics professors about doing research with them and found someone who was willing to work with me. Even though at that time there was little money available for undergraduate research students, I stayed the summer at RPI. This was the beginning of my very fruitful research career.

I stayed at RPI for graduate school. I struggled to do well in my first year of graduate level physics courses. I felt that my background was weak and I didn't have a good understanding of my undergraduate course-work. I asked one of my professors to tutor me, but there was a lot of ground to cover before the qualifying exams at the end of our first year. While my peers were reviewing different topics, I was learning them. I didn't pass the exams. We did have another opportunity to take them at the end of the following semester. However, I was so far from the minimum passing grade that my advisor was advised to discourage me from taking them again. I'll never forget the meeting when we went over my scores together and he told me he didn't think I should try to take the exams again. I was stunned and just absorbed what he said, promising him that I would consider my options. A few hours following our meeting, shock turned to anger and determination. I e-mailed my advisor that very evening telling him that I had every intention of taking the exams again. My decision shocked a couple of faculty members who didn't think I had what it took to be a graduate student in their department. Fortunately, I was strongly supported by a couple of others. The professor who had tutored me over the summer devoted many hours to me during the semester. I became truly driven and worked harder than I (or anyone else) ever imagined I could. My advisor's outlook on things gradually changed once he realized that I was willing to do whatever it took to pass the exams. To make a long story short, I passed those qualifying exams, did extremely well in the rest of my classes, and was awarded a department fellowship in recognition of my achievements.

Passing those exams was my biggest stumbling block in

graduate school. With the exams out of the way, I could devote time to the thing I enjoyed the most - research. My early start in research helped me develop the skills I needed to be a very productive graduate student. I already have several journal articles in publication, have attended numerous domestic and international conferences as well as given invited talks. I feel that I have earned respect from the faculty, my peers and collaborators and I look forward to a long productive career in astrophysics.

Jean Chiar is a Graduate Student in Physics at Rensselaer Polytechnic Institute.

From the Editor

As most of you know, this is my first issue as editor. I hope you find something of use and/or interest to you. So far, this has been fun. I've met new people and explored previously unused desktop publishing features of my word processor (Word Perfect for Mac.)

I welcome articles for future issues as well as feedback on the current issue. Contributions can be editorials, factual accounts, letters to the editor or anything else that realates to the Status of women in society in general and astronomy in particular (the former effects the latter, of course.) The next deadline for articles is around late April for publication coincident with the June AAS meeting.

Kathy Mead, Visiting Scientist, NRAO, kmead@nrao.edu