NOAO as an equal-opportunity employer -
Steps taken since Women in Astronomy II

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Background
At Woman in Astronomy II (NMA-II), June 2003, we presented a poster summarizing some aspects of the gender statistics among scientific staff at NOAO, as well as the results of the AURA gender survey, held in 2002. We quote from the poster:

"A cautious conclusion can be that although women (and men) working at NOAO are reasonably satisfied, certainly as far as gender issues go, there are still very few women present as scientific staff. NOAO is currently unattractive to female scientists. .... a pro-active attitude and policy is clearly necessary to ensure the hiring of more women ...."

Since then six years have gone by, and it is timely to present an update on the statistics and discuss NOAO’s progress toward obtaining a more diverse (scientific) staff.

Steps taken at NOAO since Women in Astronomy II

Some of the initiatives described below were a direct results of the recommendations that came out of that conference.

- Mentoring
  - In 2004 NOAO instituted a mentoring program for the scientific staff. Several mentor-mentee relations established at that time still exist. In particular an effort is made to mentor the postdoctoral fellows at NOAO.
  - A re-implementation of the mentor program, i.e. re-training of mentors and mentees is planned for 2010.

- Search committees
  - A consistent effort is being made to ensure that search committees are as diverse as possible: at least 1/3 or 2 women participate.
  - In several recent searches we have implemented suggestions presented at WAII by e.g. Denise Donlon & Aiko Huang in their talk “Making Institutional Change” presented at WAII. We have also copied some of the “best practices” mentioned in recruitment/assessment packages from UW, Michigan Tech and the University of New South Wales. We believe that this has led to a more objective comparison of the applicants and has made the selection process more transparent.

- Diversity Advocates
  - As part of an AURA wide initiative on diversity, the NOAO Director appointed in December 2008 co-diversity advocates Katy Garmann and Dara Norman, both members of the scientific staff.
  - A diversity awareness presentation has been prepared by the Diversity Advocates, and has been presented to the committee currently running a search to fill a scientific staff position.

- NOAO & CSWA

NOAO maintains an active presence within CSWA:

- Pat Knezeck served as Chair, from 2003-2007. Pat was also one of the editors of the AAS Women’s newsletter from 2001-2003 and she has been associate editor of the bi-annual CSWA magazine Status since 2004.
- George Jacoby is a member of the committee

AURA Climate Survey - NOAO specific summary

In Mid-March, AURA conducted a confidential survey of the attitudinal climate in the Centers, Gemini, NOAO, NSO and SSTL. The baseline survey was designed to focus on staff perceptions of respect, communication, fairness and diversity at their Center. The purpose of this survey is to provide an opportunity for AURA to evaluate the state of readiness of its centers in supporting, and even leading, progress on diversity initiatives in the astronomical community.

- Responses
  - The response rate for NOAO (North and South) was about 72%.
  - Nearly all (97%) of the questions received a positive (slightly to strongly agree) response from >70% of participating NOAO employees.

- Areas for Improvement
  - The areas for improvement were identified by questions with relatively low positive response.
  - Many of these concerns were also reflected in the comments.
  - In order of significance, the issues indicating areas for improvement were:
    - "Individuals are held equally accountable for behavior in the workplace"
    - "Rewards are based on performance"
    - "I believe employee issues are handled fairly"
    - "The communication is open at my Center"
    - "I am encouraged to speak up and communicate freely"
    - "Policies and Procedures are adequately documented and available"

Statistics on employment

We present four data points, each five years apart, on gender statistics of the NOAO scientific staff over a time span of 15 years: 1993, 1998, 2003 and 2008.

Table 1. Number of women per scientific staff group. The number in between brackets is the total number of all scientific staff members per group.

<table>
<thead>
<tr>
<th>Year</th>
<th>Research Associate</th>
<th>Assistant</th>
<th>Senior Associate</th>
<th>Associate</th>
<th>Senior Astronomer</th>
<th>Senior Staff</th>
</tr>
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<td>1993</td>
<td>1 (1)</td>
<td>0 (2)</td>
<td>0 (5)</td>
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<td>0 (3)</td>
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<td>1 (3)</td>
<td>0 (2)</td>
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<td>2003</td>
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<td>2 (2)</td>
<td>1 (1)</td>
<td>0 (1)</td>
<td>2 (2)</td>
<td>1 (1)</td>
</tr>
<tr>
<td>2008</td>
<td>3 (2)</td>
<td>3 (3)</td>
<td>2 (2)</td>
<td>0 (2)</td>
<td>4 (2)</td>
<td>2 (1)</td>
</tr>
</tbody>
</table>

Overall Percentages

1993: 5 out of 52 (6%) 
1998: 6 out of 58 (10%) 
2003: 5 out of 49 (10%) 
2008: 13 out of 64 (20%)

The percentage of female scientists is improving, with a significant rise since WAII.

Fig. 1 Number of employees per category.

Statistics on salaries

The following two figures show average salaries per group:

- Relative to the average salary of that year:

Fig. 2 Average salary per category, relative to the average salary of all scientific staff in that specific year.

- Relative to the average salary per group over the 15 years:

Fig. 3 Average salary per category, relative to average over years.

For comparison, the 2006 percentages, as published by the AIP are:
- Female assistant professors: 28% 
- Female associate professors: 24%
- Female full professors: 11%

Note: Employment statistics are not static. From 2008 to 2009 the percentages of female scientific staff have increased again, including those for the senior scientific staff.

Statistics on salaries

The graphs indicate that both salaries (Fig. 2) and salary rates (Fig. 3) for men and women have been very similar within the groups.

Conclusions

NOAO has made good progress; but needs to continue to be pro-active and keep reminding our staff and our management of the importance of a diverse workforce, especially at the more senior levels.

Clearly transforming the NOAO scientific staff into a truly diverse workforce is still a work in progress. There is, however, evidence that the efforts to follow up on the recommendations of WAII are bearing fruit and we are looking forward to presenting an update of the NOAO gender statistics in another 5 years.

This conclusion confirms the summary we presented at WAII.

Being an equal opportunity employer is not sufficient.

In order to attract and keep women, a strong, continuing pro-active approach is necessary, continuously reminding all, staff and management alike, of the importance of a diverse workforce.