

Committee on Minorities

Annual Report -- 1998

Review of Activities for 1997 - 1998 and Recommendations Report

by Alejandro de Lozanne, COM Chair 1998

13 November, 1998

COM has had a busy and exciting year, mostly related to the Centennial Celebration. The main fruits in this area have been the arrangement of Centennial Symposia and the preliminary design of an exhibit. All this is in addition to the normal activities of COM, such as scholarships, site visits, the E. Bouchet Award, and communication with societies representing minority scientists. A brief report on these activities is below, followed by recommendations for future improvements.

Activities for 1998

A) COM Meetings:

1. **November 8, 1997, in Palo Alto, CA** This COAAPT business meeting followed the site visit to Stanford University. As detailed in the minutes, COM discussed undergraduate education; a brochure describing COM's site visit program; the Bouchet Award; preparations and symposia for the Centennial Celebration; the status of the minority archive on the web; support and interactions with the APS Texas Section, NSBP, and NSHP; travel grants for minority speakers; COM activities/priorities; and scholarship/education issues.
2. **March 15, 1998, in Los Angeles, CA**, prior to the APS March Meeting. As detailed in the minutes, COM discussed the Corporate Scholars Program; the Significant Opportunities in Atmospheric Research and Science (SOARS) program (presented by a visitor: Tom Windham); the minority archive on the web; the past site visit to Stanford University and future visit to the University of Pittsburgh; preparations and symposia for the Centennial Celebration; future funding for APS Corporate Sponsored Scholarships; kit-based science education in elementary schools, and the Bouchet Award.
3. **November 5, 1998, in Atlanta, GA.** COM discussed the Centennial Symposia; travel grants for students to the Centennial Meeting; COM's Centennial exhibit and those by NSBP and NSHP; further collaborations with minority societies; APS Fellowships: nomination of minorities; the APS Corporate Sponsored Scholarships and the availability of the applicant pool to other scholarship/education programs; new members for the selection panel for the Bouchet Award; travel grants for women and minority colloquium speakers; and future site visits.

B) Scholarships

On March 14, 1998 COM reviewed 86 new applications and 10 renewals for the APS Corporate Sponsored Scholarships. All renewal requests were granted and 15 new recipients were chosen.

During the year several COM members advised and encouraged a few of the current awardees who were considering leaving Physics and/or having academic problems. The communication was mostly via email, but sometimes also by phone, with good results in all but one case.

The main concern for this program is that its funding will end by the year 2003. Unfortunately APS and COM will not have new fund-raising efforts until after the Centennial meeting. We hope that this program will receive a high priority for fund raising as soon as the Centennial Celebration is over.

C) Centennial Symposia

We are very glad to have been able to attract excellent and distinguished speakers for the Centennial Symposium titled "From Particles to Atoms and Galaxies: Physics in All Sizes and by All Peoples". The speakers are:

Dr. Shirley Ann Jackson, Chairman, US Nuclear Regulatory Commission
Dr. Michael Martin Nieto, Los Alamos National Laboratory
Prof. Arthur B. C. Walker, II, Stanford University
Prof. J.D. Garcia, University of Arizona

The titles and abstracts are available from COM and should soon be posted at <http://www.aps.org/centennial/programs/>

COM is also planning two invited sessions with the following tentative titles: "**Strategies that Enhance Student Learning: Building on the Past, Looking to the Future**" (organized in cooperation with AAPT). "**Physics Outreach**" (co-organized with the APS Forum on Education).

D) Site visits

COM makes site visits to Physics Departments, in a similar fashion to those made by CSWP, with the intent to assess the climate for minority students and make positive recommendations. We believe that this benefits even non-minority students because COM's recommendations are meant to improve the general climate in a department.

1. **Stanford University, Nov. 7, 1998.** COM visited the Physics and Applied Physics Departments with the frame of mind of coming to learn about what made Stanford such a successful institution in graduating a large number of excellent minority Ph.D.'s (mostly African-American). We were surprised to see that Stanford had actually not been doing as well in this respect in recent years, compared to the success of a decade or two ago. The decline was attributed to the retirement of several key faculty who promoted and nourished minority students. We were glad to see that new efforts were already underway to restore Stanford's leadership in this regard and we made further recommendations to achieve this goal.

2. **University of Pittsburgh, March 30 and 31, 1998.** COM visited the Department of Physics and Astronomy, finding a good climate for the minority students there. The problems in this department affect all students and are commonly found in other departments nationwide: 1) not enough faculty to cover all the required courses and much less to add courses that would be useful to the students; 2) the content of the undergraduate curriculum; 3) the quality and quantity of undergraduate advising; and 3) the preparation of incoming graduate students. All these problems can be addressed if more faculty are available to deal with them. Fortunately, substantial hiring is planned over the next few years. The recommendations made by COM were well received and in some cases led to immediate action.

E) Communication with minority societies.

Since COM has a similar constituency and interests as many of the societies formed by specific minority groups, we have increased our interactions with these societies, resulting in a mutual benefit. These societies include the National Society of Black Physicists (NSBP), the National Society of Hispanic Physicists (NSHP), and the Society for the Advancement of Chicanos and Native Americans in Science (SACNAS). On matters of education we interact with the American Association of Physics Teachers (AAPT), which also has a Committee on Minorities. While we have always interacted with these groups via email and phone, we have more recently increased the "cross section" by inviting representatives of these societies to COM meetings, as appropriate.

F) Minority archive

The Hampton University chapter of the Society of Physics Students has continued their project to create a web-based minority physicist archive under the direction of COM member Prof. Cynthia Keppel and with support from APS. While this archive is modeled after the one related to CSWP, it is far less mature. The current contents of the archive can be viewed at the following temporary site:

<http://137.198.41.173/~ngreen/archive.cfm>

G) Problems

1. **It is difficult to set up invited sessions at APS meetings.** COM usually has no trouble finding physicists who can speak about minority issues. Unfortunately this does not draw a wide audience at the specialized meetings, such as the March Meeting. To achieve this, COM would like to organize invited sessions on topics that are of interest to the participants attending that particular meeting. For example, for March 1998 we tried to organize a session where minority speakers would talk about their research on magnetism, but we were not able to find enough African-American speakers on this topic. The short term solution may be to mix in non-minority speakers in such specialized sessions. The long term solution is to wait until enough minorities are available in the topics of interest (this is the usual "pipeline" problem).
2. **Finding minority physicists within the ranks of the APS.** COM would like to have a brochure at the Centennial Meeting Exhibit which describes the purpose and activities of COM. We would also like to list the APS Fellows who are minorities. Unfortunately APS

does not ask prospective members about their ethnicity (and probably this should not be asked in the future), so this information is not available at the APS. So far our approach has been "word of mouth", by asking colleagues and minority societies, who among APS Fellows are likely to be minorities. Unfortunately this is a delicate issue, because some individuals who are ethnically classified as minorities have a philosophical stance against being recognized as such. Therefore we will proceed slowly and tactfully to produce a partial list.

3. **Are minorities not being recognized as APS fellows?** In the process of asking for names of APS Fellows who are minorities, we received a message claiming that the APS has a poor record when it comes to electing minority physicists as APS Fellows. Whether the claim is true or not (and even if true, the responsibility of bestowing Fellowship does not rest on an individual or fixed panel, but is handled by panels with rotating membership), it seems that the main problem is that deserving minority APS members have not been nominated to Fellowship. Minority societies and committees have been encouraged to nominate deserving individuals.

H) Future directions and recommendations.

1. **Reviewing scholarship applications.** In the last two years we have made this process more efficient. The basic philosophy is that most of the effort should be directed at ranking carefully the applicants who are near the borderline of getting an award. Those who are at the top and bottom of the pile can be easily found by readings from two or three committee members, so the rest of the committee is not required to read these applications. Variations in grading styles are compensated for by normalizing the scores of all committee members by their average score. A possible improvement is to use "standard" scoring (T-score), which also includes a standard deviation in the normalization, so as to make every committee member's distribution similar. I believe this is not necessary.

Fortunately, the grading can be done ahead of the meeting because the applications are sent to all committee members about one week ahead. Unfortunately, the new evaluation procedure means that the scores need to be entered and normalized before traveling to the meeting, so if one or two committee members fail to complete their assignments this creates problems. One possible solution is to mail the package of applications two or three weeks prior to the meeting, even if there are incomplete applications. This is already being implemented because the application deadline has been moved up. An alternative solution would be to deal with the whole process electronically as much as possible. The first step would be to scan all the applications and send them via email or ftp. Scanners are now as easy to use as copiers, so this should not be burdensome given the right equipment. At this time the amount of space required to store all this information may be prohibitive, but advances in hardware and software will make this possible sooner than we think. Indeed, the University of Texas already scans and disposes of all paper for thousands of applications every year. Eventually, the whole application should be handled directly on the web, with a mail option for those without access to the web.

2. **Use technology to minimize travel.** APS should use more technology to minimize the amount of travel required of members in its committees. At our Nov. 5 meeting, for example, COM rented a conference speaker phone to allow the committee to talk to a person who was not able to travel to the meeting. This worked extremely well. APS should buy this kind of equipment for use by any of its committees (indeed, given the high cost of the rental of this phone, the purchase would pay for itself in a few meetings). COM also held a country-wide telephone conference call with students at Stanford University after COM's site visit, because the students wanted to discuss more issues with COM. This too, worked very well. Going one step further, videoconference equipment is now fairly available (a complete station costs under \$5K) and effective. Most universities have videoconference technology already in place.
3. **Maximize participation of committee members.** As in any other committee, members of COM may have conflicts that prevent them from attending a given meeting. To minimize these conflicts it may help to list the main tasks of the committee in the letter that invites new committee members. The main tasks are: 1) A meeting in the Spring (usually immediately prior to the March Meeting) and a Fall meeting; 2) Evaluation of scholarship applications (about 20 per committee member) to be completed before the Spring meeting; and 3) Participation in email communication between all members of the committee throughout the year to deal with issues as they rise (more urgent matters may require phone calls, but this is rare). For email to work well, a response time below 24hrs is desirable.