Lori Diachin and Carol Woodward

Center for Applied Scientific Computing Lawrence Livermore National Laboratory 7000 East Ave., L-561, Livermore, CA 94551

Our proposed activity was to hold a series of brown bag lunches to present and discuss items learned at the Women in Applied Mathematics: Research and Leadership Workshop held in Maryland during October 2003. We also proposed to discuss challenges in taking on leadership roles within a research organization and strategies for meeting them both in general and specifically within the LLNL environment.

To meet these goals, we held three brown bag sessions. We sent notice of the sessions to 25 women in the Computation Directorate at LLNL and in the Computational Sciences Research Institute at Sandia National Laboratory (SNL), Livermore. These women ranged form post doctoral fellows to Division leaders in seniority. The technical focus of many of these women was computer science although about 1/3 were in applied mathematics.

The first session featured Tammy Kolda, one of the two workshop organizers, who gave a reprise presentation of her plenary talk from the meeting. This talk overviewed Tammy and Diane O'Leary's thoughts on the current status of women in applied mathematics research. They gave numbers of women graduating with PhDs as well as numbers of women on the faculty at top tier research institutions. They also noted the membership percentage of women in SIAM and the numbers of women on editorial boards. Lastly, they gave some anecdotes of comments and events that have happened to women in the professional workplace. After the talk, we had a substantial round table discussion where attendees (approximately 15) shared their thoughts on numbers of women in mathematics and computer science at the laboratories and some of the challenges faced in the past. The discussion was lively and enlightening to many who participated.

The second session consisted of a panel discussion with three women who have significant leadership roles in the Computation Directorate at LLNL. These women have had very different career paths, and each one summarized how their career evolved particularly highlighting the decision points along the way. They shared why they choose as they did, as well as whether they now thought those decisions were good ones. Again, the attendees (approximately 5) had a round table discussion of some of the topics raised and what they found interesting. Because many of the panelists and attendees had a long career history at the lab, there was also an interesting discussion of how things have changed at LLNL over the years.

The last session was an informal discussion on getting involved in the research community through serving on editorial boards and as officers in professional societies. This session was attended by about 7 women from both LLNL and SNL. Many of the topics discussed at the October 2003 workshop on this subject were discussed again in

this forum. The post doctoral fellows present asked many questions, and the session became more of a mentoring activity for both the younger and more senior researchers.

Overall, the three sessions were extremely beneficial to the women who attended. Many have commented that they appreciated the chance to get to know other women within the laboratory environment. Networking was especially enhanced in the first two sessions since women of all seniority levels attended. In addition, we found that the career path discussion was particularly enlightening to the attendees. Although the three women who described their career did not pursue visibility outside the laboratory environment, their experiences gave much food for thought and further consideration to those listening.

Finally, our sessions faced some challenges within the laboratory environment. The topics of the October 2003 workshop appealed to a very few women at the laboratories. In particular, we found that applied mathematics research organizations are a small part of the laboratory environments, and within those organizations, there are only a few female applied mathematics researchers. As a result, our sessions were not as well attended as we would have liked and could not focus on the areas we had originally planned. One fact that particularly surprised us was the small number of researchers at LLNL who focus on outreach to the external scientific community. This orientation may be due to a reward system that does not require such outward focus.

In the future, we plan to continue our discussion session with a small, core group of female applied mathematics researchers. This small group will allow us to concentrate on issues relevant to the applied mathematics community and also focus on career development decisions especially when tradeoffs exist between spending time on activities with an outward research community focus versus a laboratory focus.